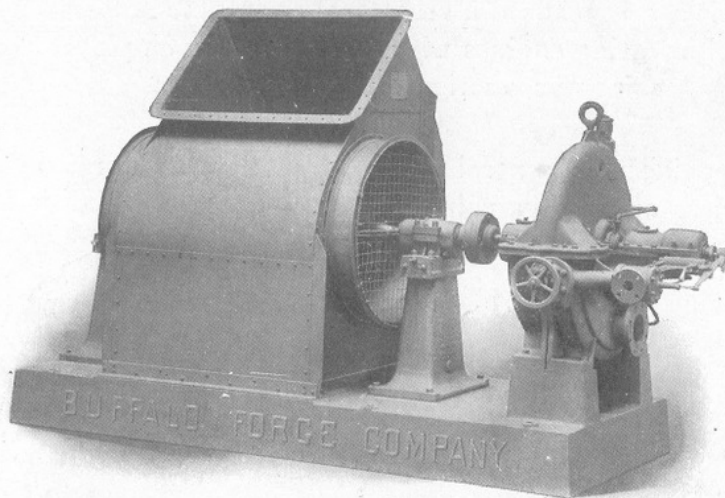


# BUFFALO

## STOKER FANS



CATALOG No. 420-A

Buffalo Forge Company

BUFFALO, N. Y., U. S. A.

## Stoker Fan Catalog

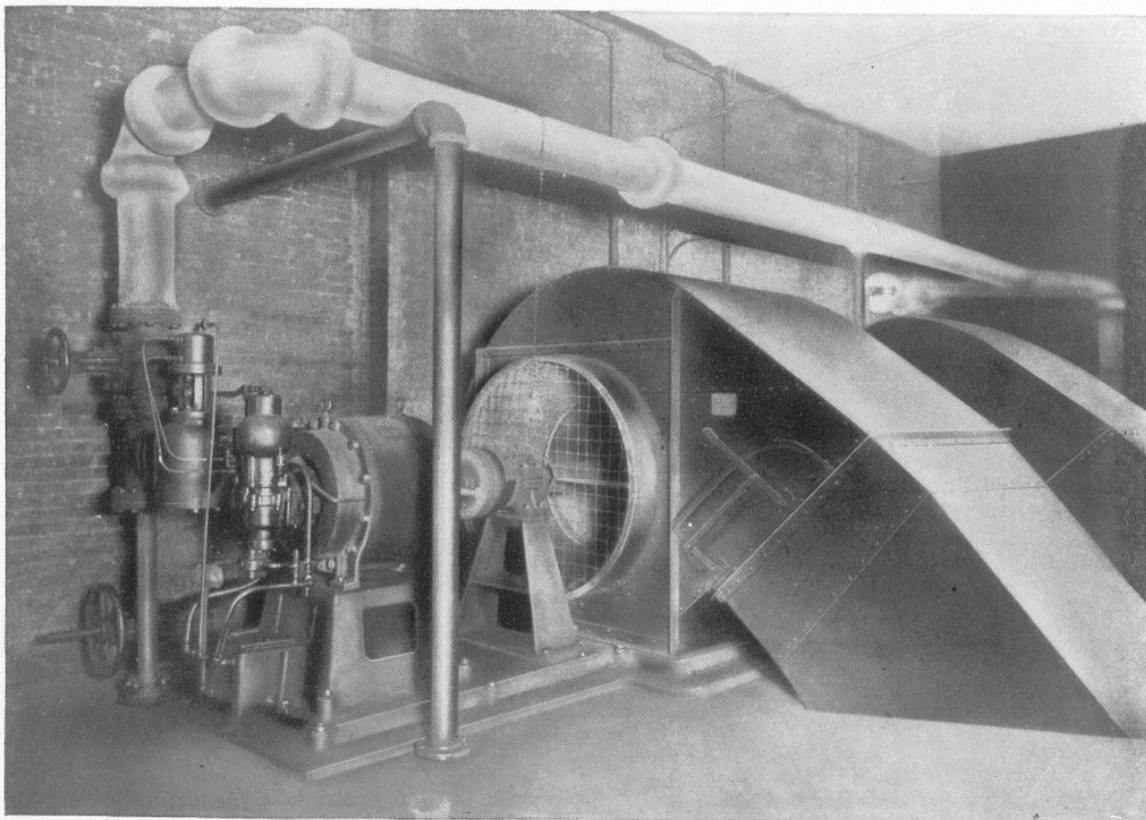
THE wide-spread use of the latest types of underfeed mechanical stokers is sufficient justification for our presenting this catalog of stoker fans. The Buffalo Forge Company has been designing and manufacturing fans for forced and induced draft for many years, and being abreast of the developments in this line, realized early in 1911 the desirability of having a new type of fan available for high speed high pressure work. The older types of mechanical stokers in large boiler plants were being superseded by underfeed stokers of much larger sizes than formerly had been thought possible, with attendant thick fires, high overload capacity and heavy draft pressure required for the high combustion rates that were becoming available. Fans of the type already in use were not built heavily enough for operation at speeds required for 6 inch maximum static pressure, and this service caused a great deal of trouble not only with the blowers, but with the reciprocating engines which were usually employed for driving them; moreover their great size was a serious objection.

Operating engineers in central stations had grown to prefer turbine or motor driven accessories, and the amount of trouble experienced with reciprocating engine driven fans at high rotative speeds was retarding the progress of the underfeed stoker. Accordingly our Engineering Department had for some time been working on the development of a design which would be compact, efficient and could use motor or steam turbine drive. This fan must undoubtedly be of the multiblade type for the sake of compactness, but should avoid the undesirable pressure-capacity relation which is characteristic of all forward curved multiblade fans. It should also permit of sufficient ruggedness in design to operate at peripheral speeds at least twice or three times as great as had been the practice, and this without sacrificing the high efficiency obtained, for example, in our Niagara Conoidal Fan.

The maximum pressure called for by most underfeed stoker installations is approximately 6 inch static, and this may efficiently be obtained only from a high air velocity transformed without shock within the fan casing. These features were combined in the Turbo Conoidal Fan having a modified casing for the efficient conversion of velocity head into static pressure, deep extended inlet cones to avoid shock at entrance, and a rugged wheel with blades having double curvature, forward curved at the inlet edge and tipped backward at the periphery, thus combining the impact and centrifugal effects and obtaining a pressure curve which rises as the capacity is decreased, tending to stabilize the fan performance and maintain normal capacity over a wide range. Realizing the desirability of these features, we obtained exclusive patents on this type of fan and have since 1912 supplied Turbo Conoidal Fans for the great majority of underfeed stoker installations made by American Companies.

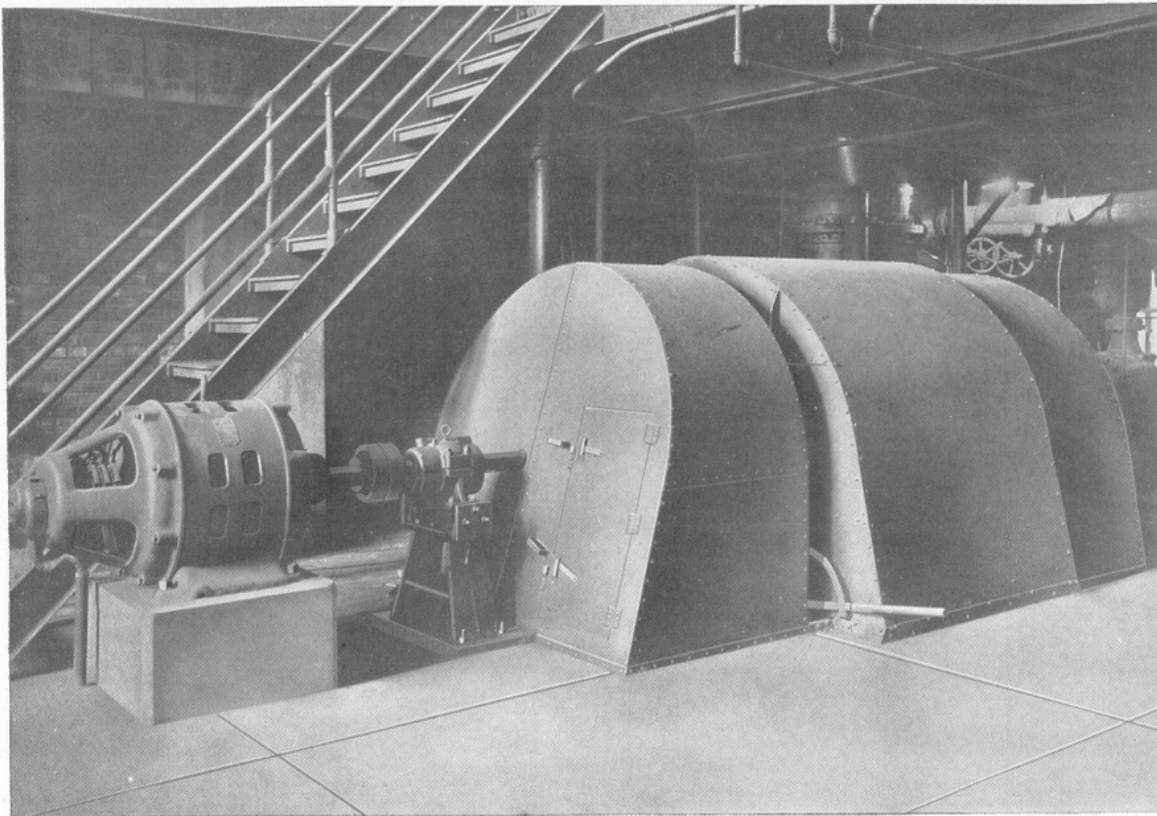
Having with the Turbo Conoidal stoker fan entered a new field, refinements in design were adopted which had not been considered necessary and to the extent that other high speed fans have since been built for underfeed stoker service they have as far as possible followed these essential features, which were original with the Buffalo Forge Company.

In the fan bearings, for instance, we departed entirely from previous practice; since the effect of unbalancing at high speeds is to cause considerable vibration, the bearings are invariably carried on heavy cast iron pedestals and are of the ball and socket type with a socket consisting of a complete ring holding the inner bearing. They are thus of such size that the unit pressure is negligibly small. The bearing, besides being free to adjust itself in any direction, is protected from dust and from oil leakage by oil-tight metal-to-metal joint in the housing, by felt washers around the shaft, and furthermore by our patented balancing arrangement, which equalizes the pressure on the two sides of the bearing and neutralizes any tendency for oil leakage if the felt washers should become loose in service. All parts of these bearings are very heavy, built not alone to transmit the horse power needed, but to withstand the many times greater strain of operating with the rotors in an unbalanced condition.



Two No. 8 T. D. Stoker Fans, Turbine Driven





No. 7½ T. D. Stoker Fan with enclosed intake, American Gas & Electric Co.

## Turbo Conoidal Fans Construction

In designing the fan shafts, the diameter is made sufficiently large so that in no case does the maximum operating speed approach the critical speed of the unit. This requires a shaft very much larger than is needed to give bearing surface; therefore the tapered section at each end as shown in photographs. The rotors have been made increasingly heavy, and with tie rods attached tangentially at the hub end, so as to resist the heavy starting torque of induction motors.

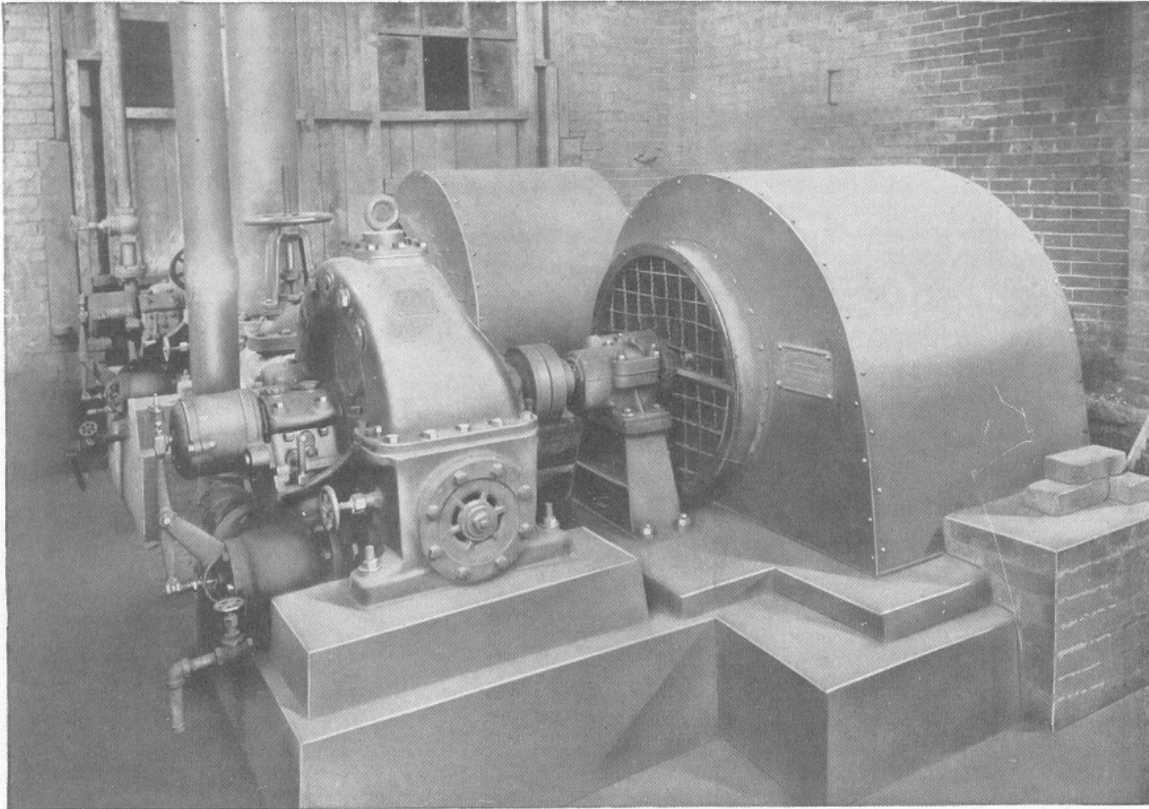
### **Base Plates:**

Rigid structural supports or solid foundations are absolutely necessary for stoker blowers, so that if accurately aligned with the drive, they will remain so. Cast iron subbases add to the appearance of these outfits and make alignment simpler, but are not absolutely necessary.

### **Couplings:**

On account of the possible settling of foundations and uncertainty of accurate field work on alignment of units, it does not appear that the use of flexible couplings can be avoided.





Installation at Counties Gas & Electric Co., Morristown, Pa. plant

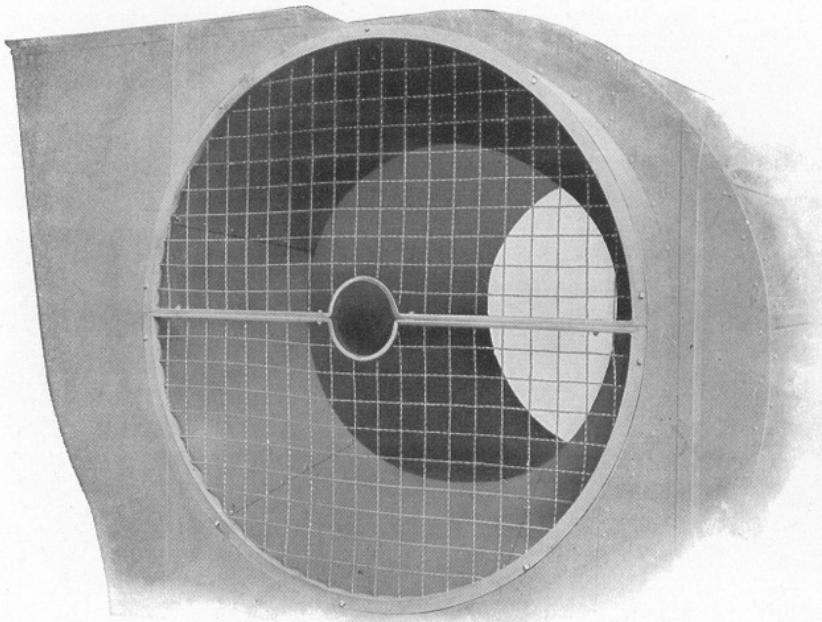
### **Casing:**

The casing is constructed of heavy rolled steel plates of sufficient thickness and strength to take care of all strains, stiffened with angle irons on the sides and around the base. A section of the scroll is removable for cleaning the blades of the rotors and removing accumulations of soot which might affect the balance. As the air velocity at the inlet is necessarily high, loss of pressure at this point is avoided by a long inlet cone, the inner end of which fits closely against the inlet of the rotor. At the outer end of this cone is a screen of  $\frac{1}{8}$  inch wire 2 inch mesh made in halves on a channel iron frame. This screen prevents accidents to attendants or to the blower, and is easily removed.

In order to obtain the greatest possible conversion from velocity at tip of blades into static pressure at fan outlet, the housing scroll is so designed that the inner edge of the outlet is approximately tangent to the periphery of the wheel, and the height of the outlet approximately equal to the wheel diameter.

### **Rotors:**

There are two rotors or blast wheels placed back to back and keyed to the shaft. Each wheel has thirty-two blades.



Inlet Screen

to an angle curved to conform to the blade, which in turn is riveted to the inlet flange.

The blades have a double curvature and at the supporting disc are twice the depth at the inlet end, affording great rigidity and permitting high rotative speed. The forward curve at the inlet edge picks up the air without shock and produces a uniform flow between the blades. The backward curve at the tip reduces the velocity of the air leaving the wheel and increases the speed required for a given pressure. This design produces a stiff and rigid wheel which is not easily affected by centrifugal pull.

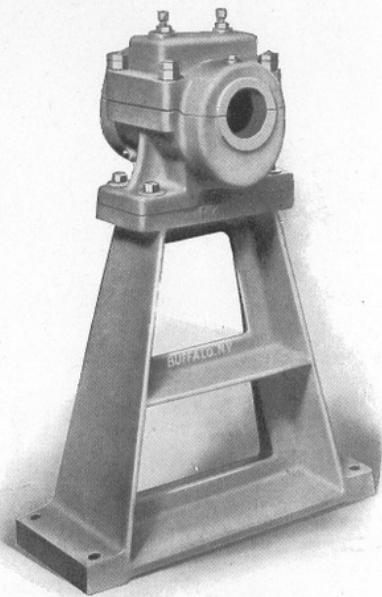
This rigid construction is further strengthened by means of four forged tie rods which are anchored to the hub and riveted on the outside of the inlet flange.

### Shaft:

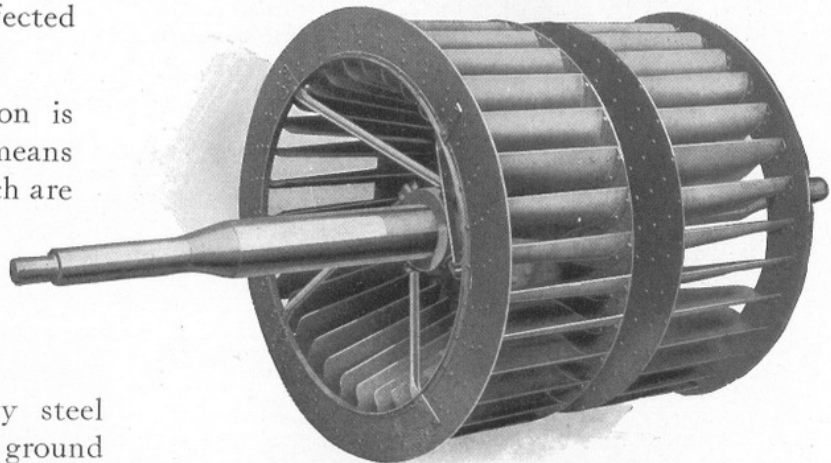
The shaft is a heavy steel forging. It is turned and ground to size. Its proportion, distance

### Blades:

The hub is a single casting having a slope which conforms to the flow of air. A heavy boiler plate disc to which the blades are securely hot riveted is riveted to the hub. Each blade is riveted



Pedestal Bearing



Blast Wheel

between bearings, weight of revolving parts, etc., is such that the critical speed is always in excess of the highest operating speed by a safe margin.

### **Bearings:**

The bearings are of the double oil ring spherical type, very heavy and substantial throughout. The liners are fitted with best quality babbitt metal peined and bored, and mounted in a spherical socket machined to jig, so that new liners may be interchangeable. Each bearing has a thrust collar entirely enclosed within the outer bearing shell and running against a babbitted shoulder.

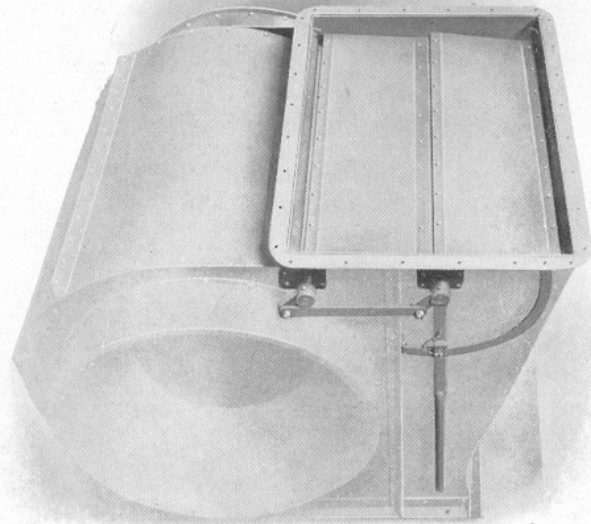
Bearings are oil proof, and dust tight, felt washers being furnished to prevent leakage, and a balancing arrangement designed by us neutralizes the air suction tending to draw oil along the shaft.

The bearings are usually mounted on cast iron pedestals of open design to allow free air passage.

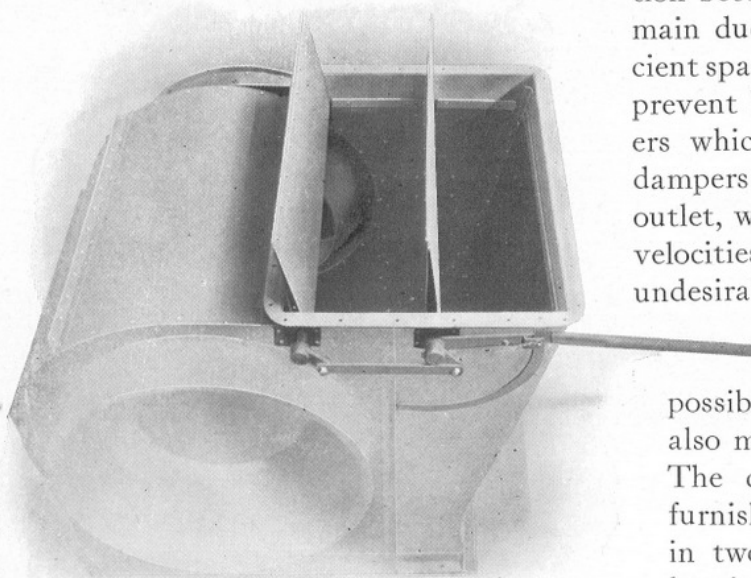
### **Outlet Dampers:**

Since stoker blowers are frequently installed in batteries, and the connection between the fan discharge and the main duct is short, not allowing sufficient space for the dampers necessary to prevent back drafts through the blowers which are being held in reserve, dampers may be mounted in the fan outlet, where, on account of the high velocities, their presence is more or less undesirable, and in such case they

should be made so as to offer as little resistance as possible to the flow of air, and also must be very rigid and strong. The cut shows outlet dampers as furnished with stoker blowers, built in two leaves with the edges overlapping, accurately fitted to prevent leakage, and linked up with one

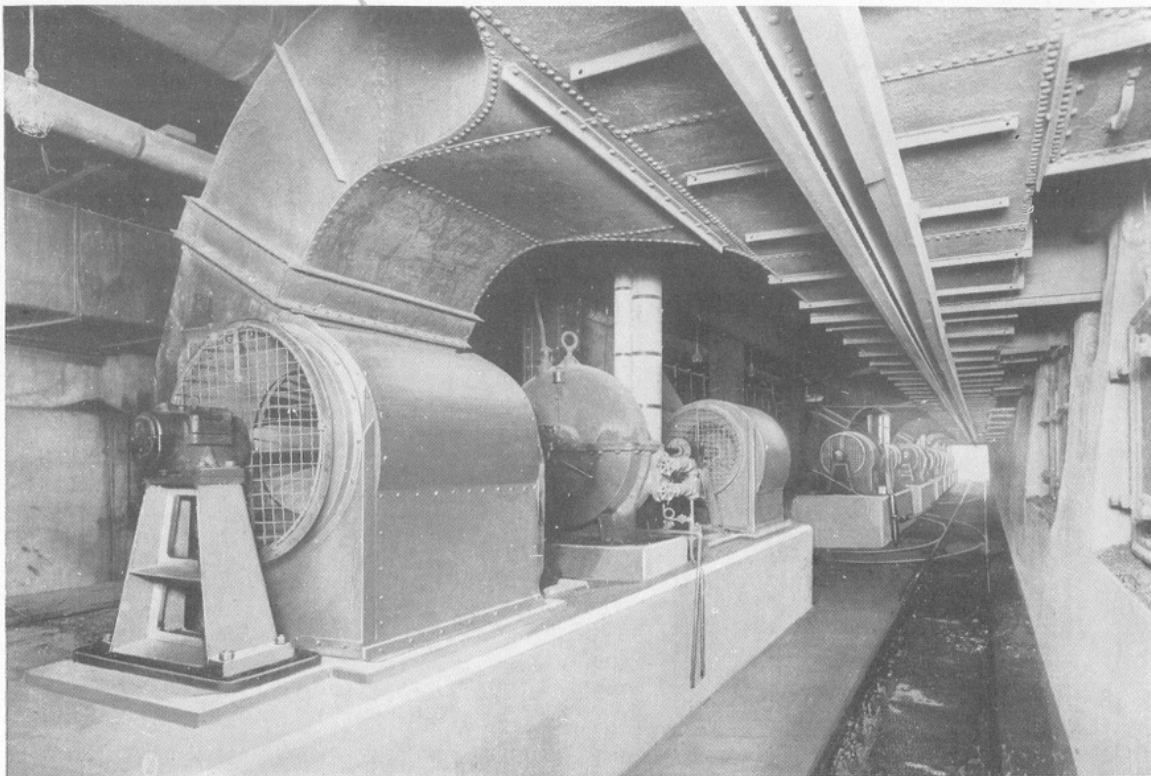


Outlet Damper—closed

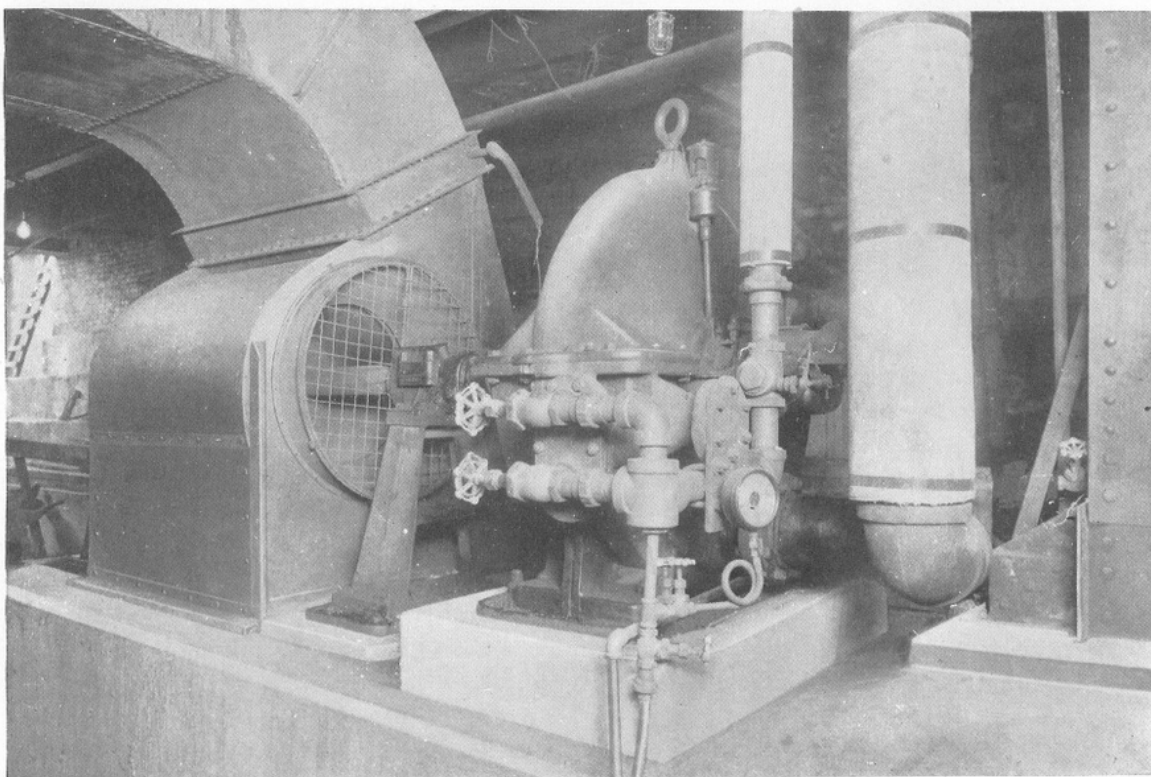


Outlet Damper—open

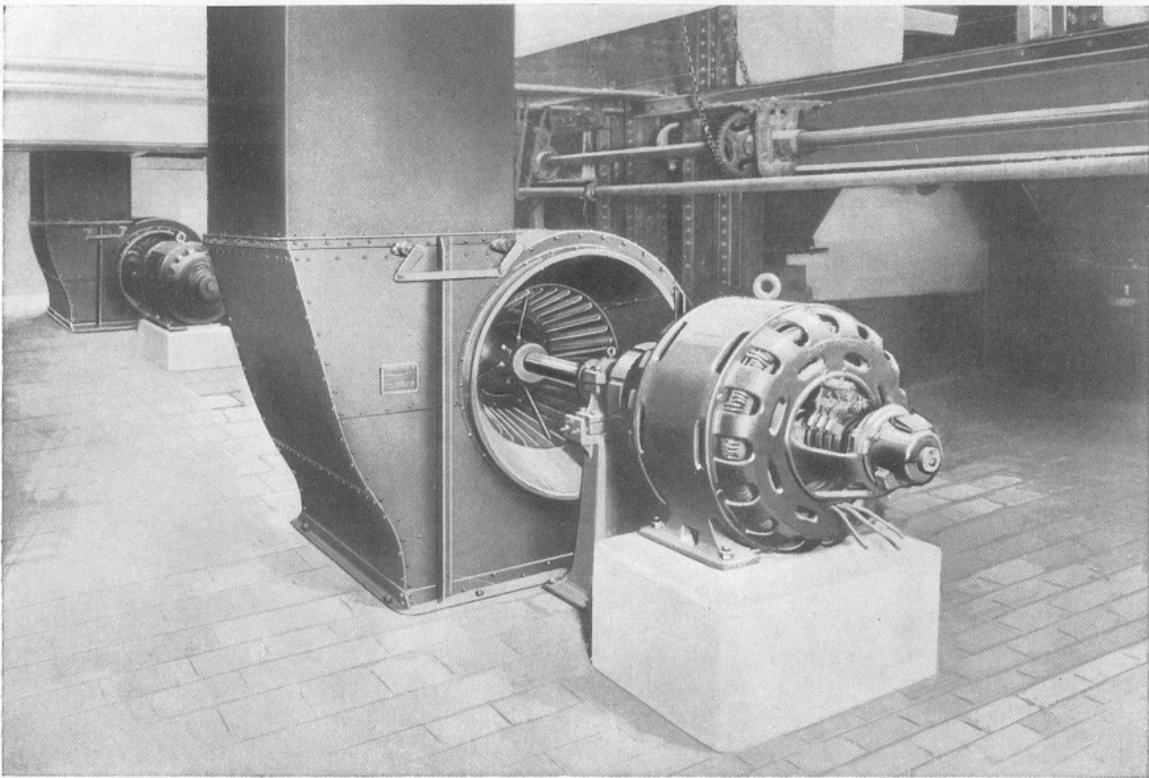




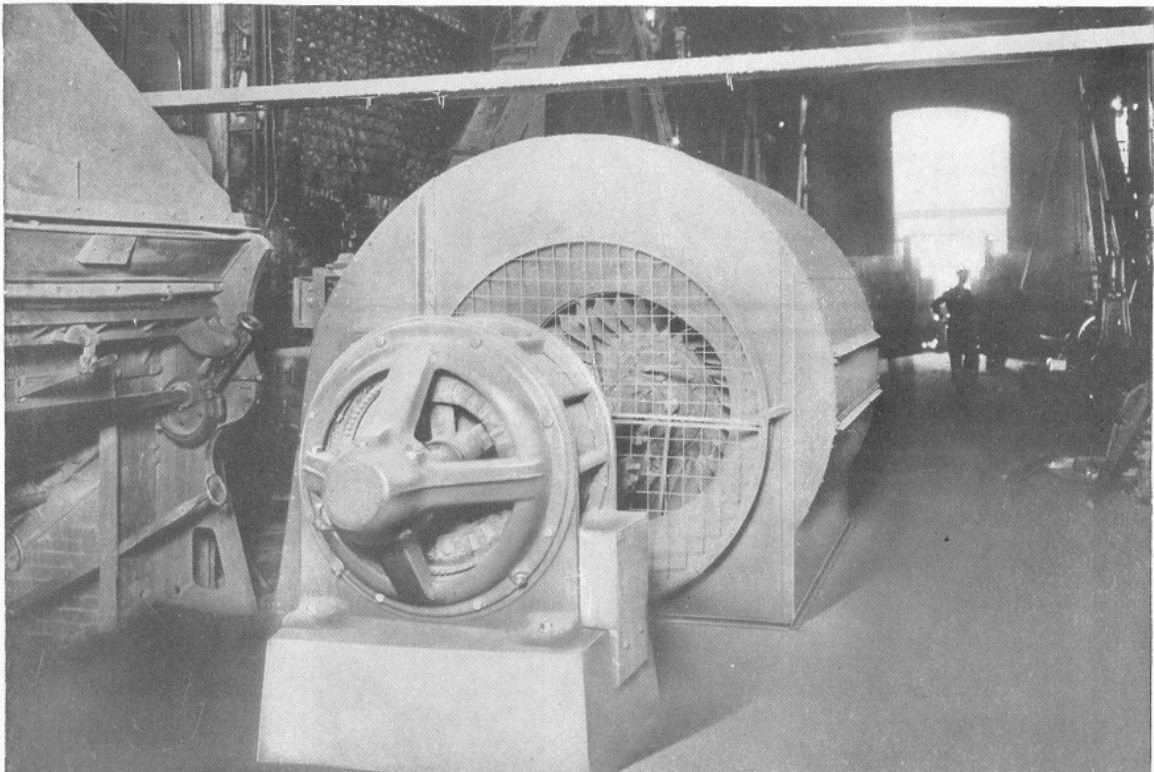
West Penn Traction Co.



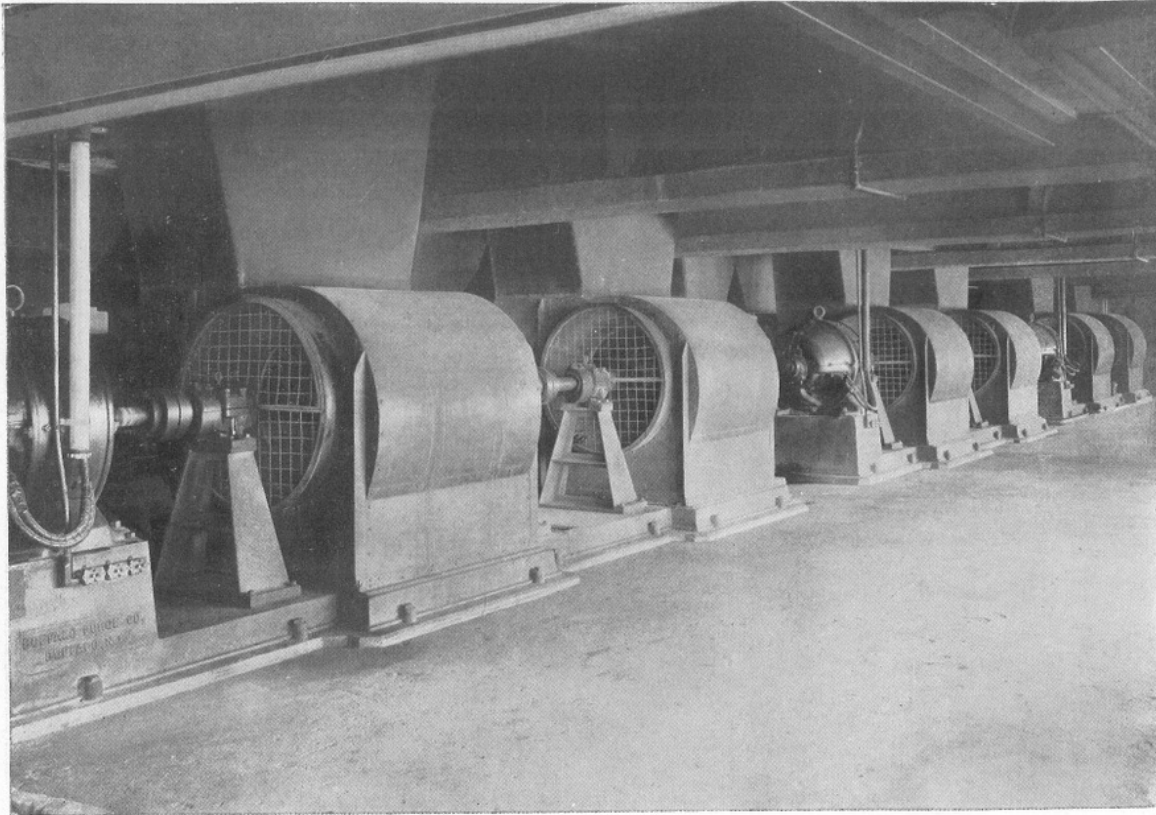
West Penn Traction Co.



No-8 Double Turbo Conoidal Fans in large public service company



Stoker Fan installation at Metropolitan Electric Co.



Stoker Fans at Ford Motor Co., Detroit plant

operating rod having ample leverage. These outlet dampers are not for regulating the blast pressure, but are intended to remain either in open or closed position.

### **Inlet Screens:**

On account of the high velocity at the inlet, the suction is sufficient to be dangerous to operators, and for this reason inlet screens should be furnished. As constructed by us, these are of coarse mesh with very heavy wire, the ends of each wire being solidly welded into a frame with channel iron section, eliminating any danger of their being pulled loose. The inlet screens are made in halves, so as to be removable.

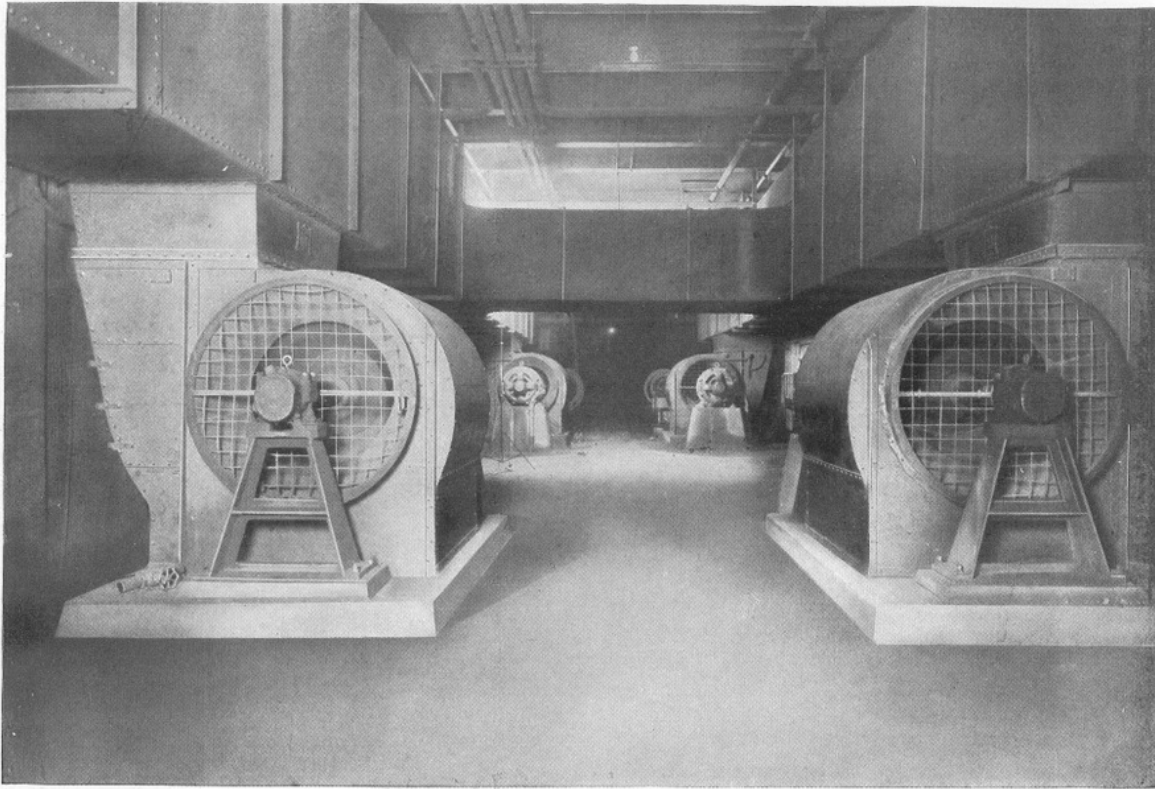
### **Tests:**

The capacity and efficiency of Turbo Conoidal Blowers is determined under test conditions substantially the same as those used by the United States Navy and accepted as standard.

This test is made as follows:

A galvanized iron test pipe is attached to the fan outlet which must be of the same shape and dimensions as the discharge opening in the fan housing and in length 15 times the mean of the two fan outlet dimensions. All air pressure readings to be taken in this pipe with standard pin-hole pitot tube at a point two-thirds the length of the discharge duct away from the fan outlet.



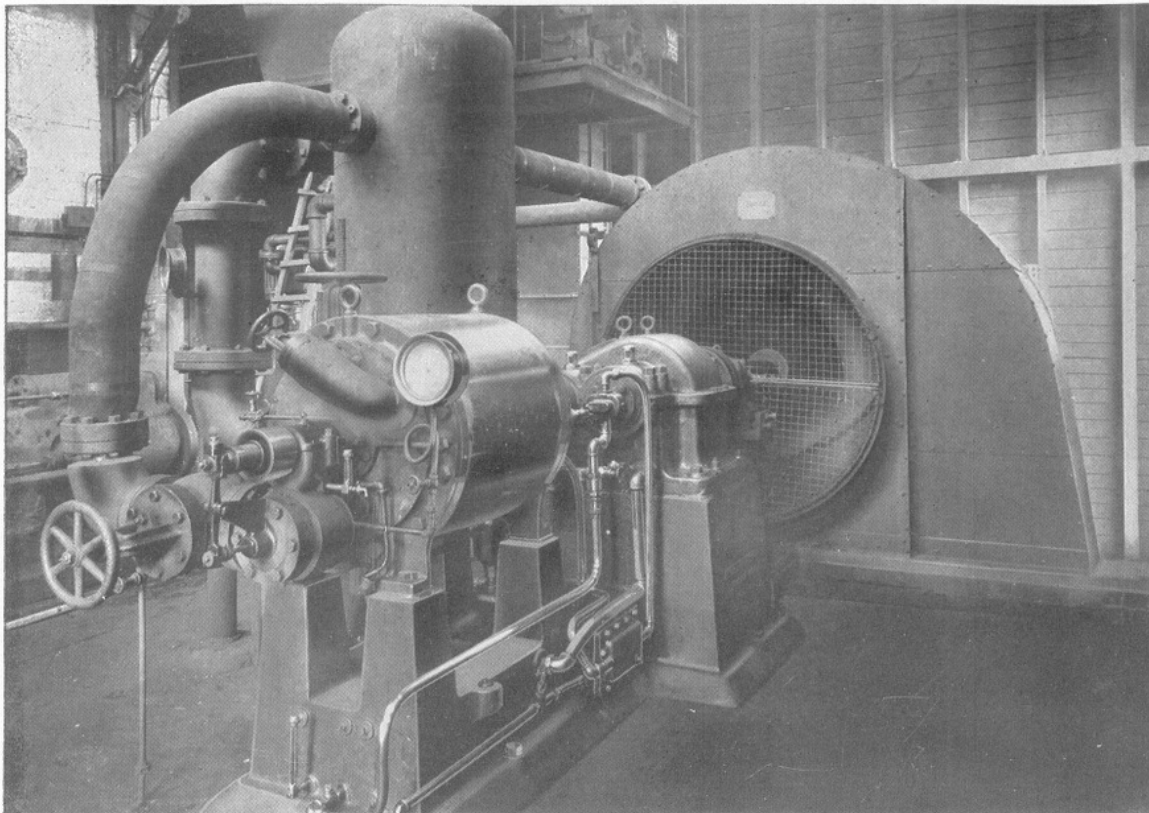


Ashley St. Station—Union Electric Light & Power Co.

To vary the discharge orifice use ten galvanized iron plates clamped at the discharge end of the test pipe with rectangular orifices in the plates ranging in area from 10% to 100% of the area of the fan outlet. A series of static pressure and velocity pressure readings is to be taken for each plate or orifice over a traverse of the test pipe, the cross section of the test piping being divided into imaginary squares so that readings on each traverse will not be more than 6 inches apart. Velocity pressure readings to be taken by means of an inclined draft gauge. These pressure readings to be arranged for each orifice, and static pressure and capacity curves plotted from same, taking into consideration the air density and the friction loss in duct between the fan outlet and the point where readings are made.

Horse power required to drive the fan shall be determined by some method which permits reasonable accuracy, preferably, a device similar to the Sprague Electric Dynamometer direct connected to fan and taking a no-load reading with fan blast wheels removed. Another method is to use a calibrated motor belted to fan, reading the load by means of a calibrated watt-meter and allowing 2% of the brake horse power for belt losses.

All readings must be taken simultaneously and speed maintained practically constant throughout the test. The test duct must be sufficiently braced so as to maintain its form and size under pressure.



Stoker Fan with Geared Turbine

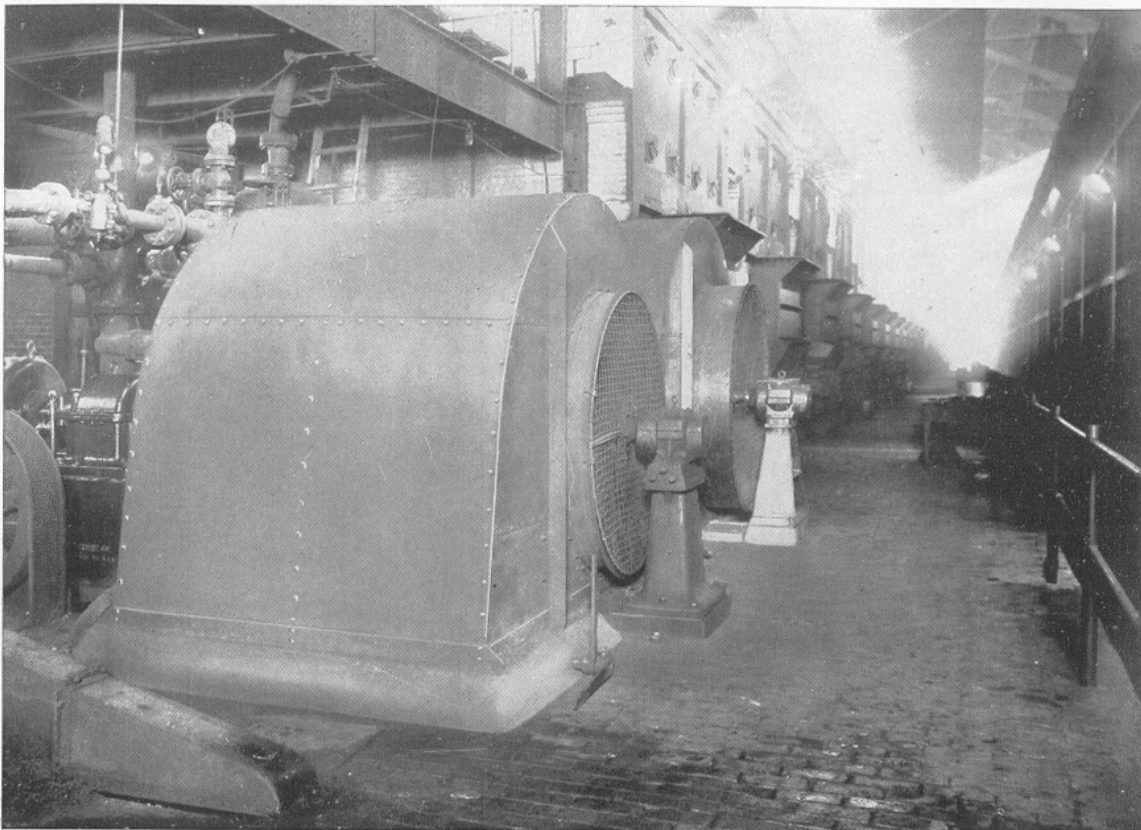
### Draft Requirements:

The draft or pressure required for a boiler is due to the combined effect of three causes, first, the resistance of the fuel bed, second, the resistance of the boiler, and, third, the breeching and uptake; where forced draft is used it may not be necessary to provide for all of these, as the stack may be sufficient to overcome the resistance of the boiler, the breeching and the uptake, or an induced draft fan may take the place of the stack. The amount or intensity of draft to overcome the resistance of the fuel bed varies with the rate of combustion, thickness of the fuel bed, and kind of fuel used; the following table gives some of the commonly accepted values for draft required in the furnace to overcome the resistance of the fuel bed with hand firing under the different conditions stated.

### Furnace Draft in Inches of Water

	Lbs. of Dry Coal Burned per Sq. Ft. of Grate per Hr.						
	15	20	25	30	35	40	45
Eastern bituminous coal.....	0.12	0.16	0.20	0.27	0.34	0.42	0.52
Western bituminous coal.....	0.15	0.20	0.25	0.33	0.42	0.52	0.65
Semi bituminous coal.....	0.15	0.20	0.28	0.37	0.48	0.60	0.80
Anth. buckwheat, No. 1 and larger .....	0.45	0.70	1.00	....	....	....	....
Anth. buckwheat, No. 2 and 3.....	0.75	1.30	....	....	....	....	....

The weight of air theoretically required for one pound of combustible is approximately 12 lbs., but owing to the fact that it is impossible to perfectly intermingle the air and the gases rising from the grate, more air must be delivered than



One of Two Fans in plant of Youngstown Sheet & Tube Co.

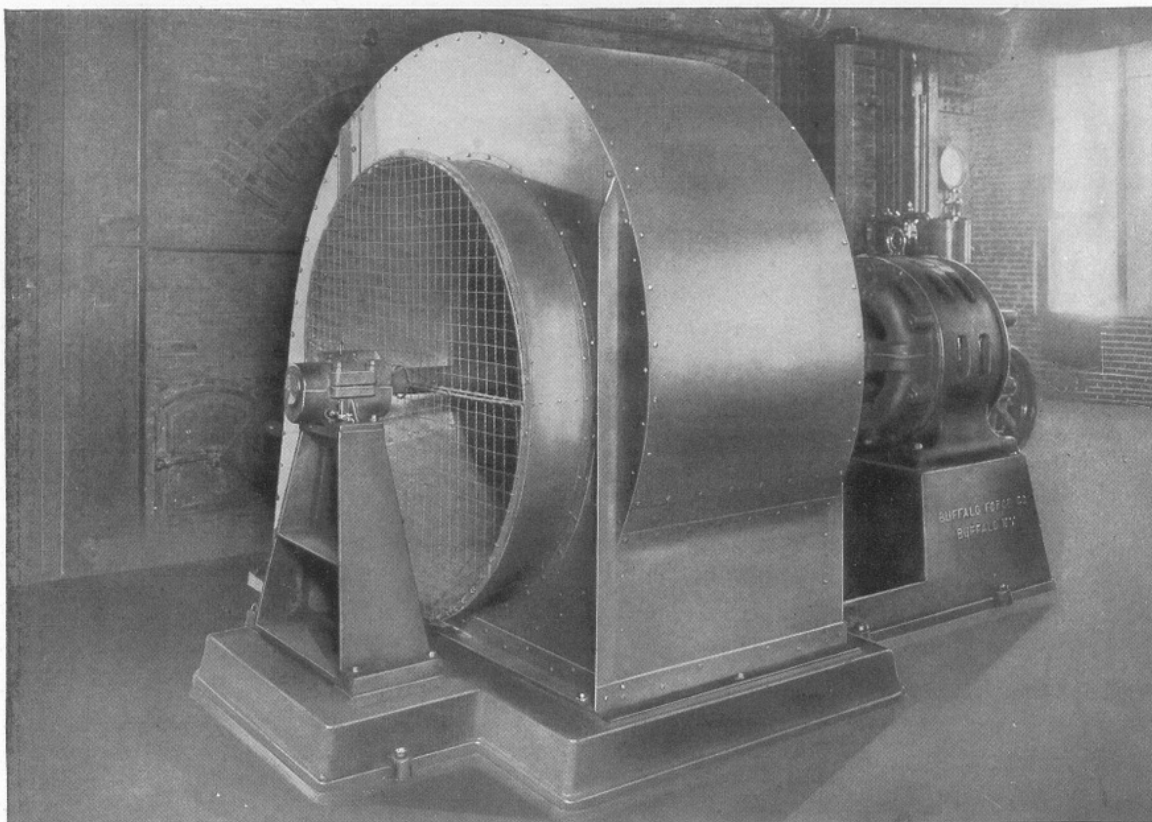
is theoretically required. This will vary from 18 to 30 lbs., depending on the installation, in the average case between 20 and 25 lbs. of air per pound of combustible being allowed. It is customary practice in selecting forced draft apparatus for hand fired boilers to allow 100% excess air, i. e. to supply double the amount of air theoretically required for the combustion of the fuel. This is due to imperfect combustion, to leakages, and to provide a margin of safety.

One of the great advantages of the underfeed stoker, aside from its capacity for overload is the more efficient combustion of fuel, which thereby reduces the amount of excess air necessary; a properly designed underfeed stoker installation will not require more than  $33\frac{1}{3}\%$  excess air, and there are well authenticated tests on boilers operating with considerably less than even the minimum mentioned. In the table on page 16, is shown for various percentages of fresh air the boiler efficiency, the pounds of combustible per boiler horse power, and the cubic feet of air per minute per boiler horse power measured at  $70^{\circ}$  F. from which it may be seen that per pound of good bituminous coal burned per hour, a stoker installation requiring 30% excess air will take approximately 200 cubic feet. A poorer grade of coal containing less combustible requires a less volume of air.

The air pressure at the fan must be sufficient to allow for loss due to the resistance of ducts, which includes restrictions of any kind due to elbows or to dampers.\* The pressure in the wind box depends upon the rate at which the stoker is working. The percent of boiler rating is a relative figure, and is not constant

\*For frictional resistance of elbows see "Fan Engineering," W. H. Carrier, 1914.



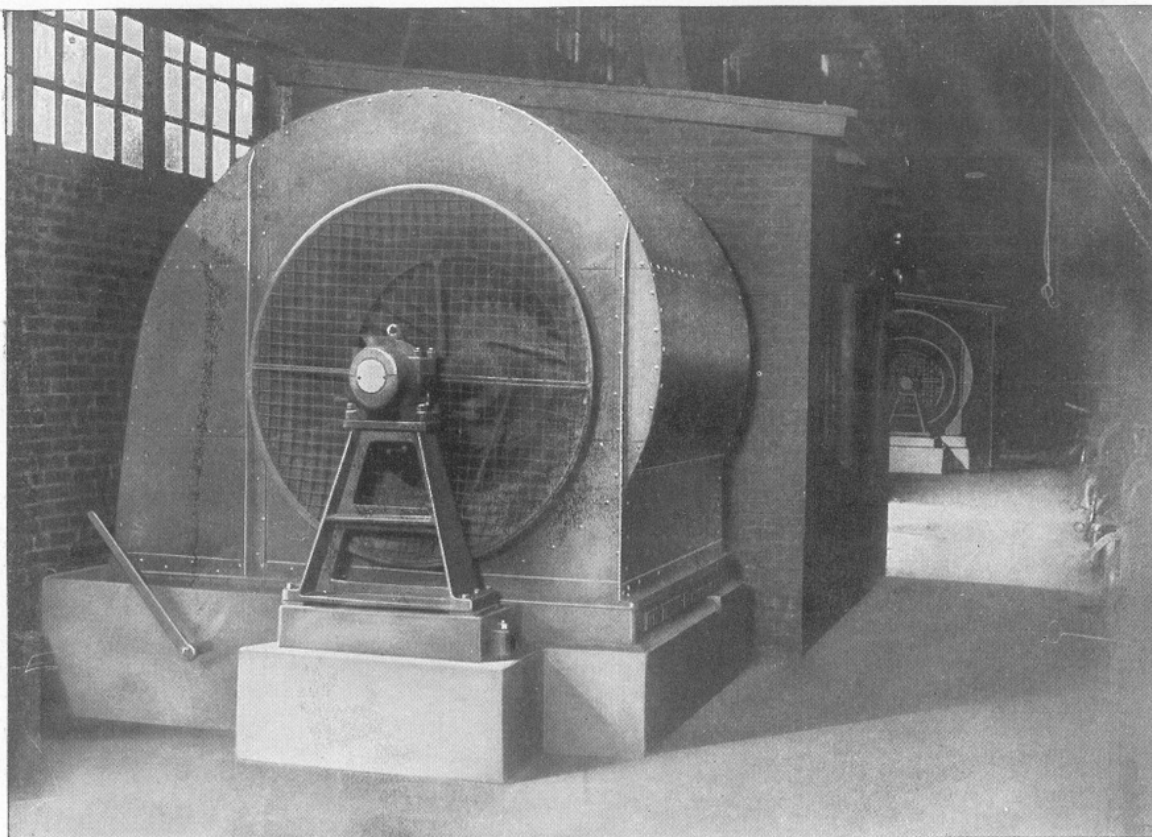


Stoker Fan at Spang Chalfant Co. plant

for all installations. A well known type of underfeed stoker can burn from 300 to 1300 lbs. of coal per hour per retort, and anything between these limits can be selected as 100% rating, the selection being dependent upon the type of boiler and the setting. Usually where space permits, a stoker is installed which at normal boiler rating will burn a little more than the minimum amount, thus for individual cases information should be obtained from the stoker manufacturer as to the wind box pressure required, but for the average conditions just mentioned, the wind box pressures required will be about as follows:

Percent of Rated Boiler Capacity	Air Pressure in Wind Box
100%	1½ inch
150%	2½ inch
200%	3½ inch
250%	4½ inch
300%	6 inch

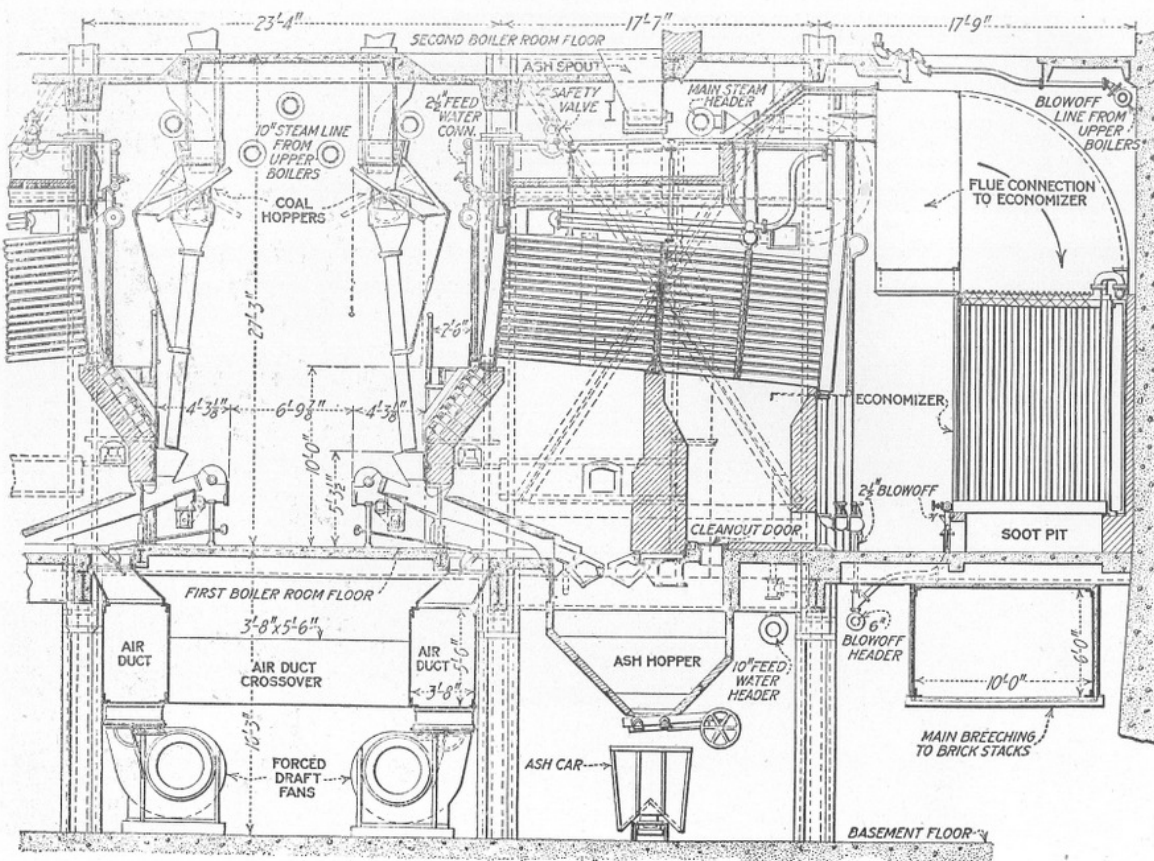
These figures are for Pittsburgh bituminous coal. Eastern coal having 65% fixed carbon requires 15% increased pressure, and middle Western coal with 40% to 50% fixed carbon 15% less. For Western coal containing less than 40% fixed carbon, these pressures should be reduced approximately 20%. Stoker installations have been designed for burning Western lignite of 12,000 B. t. u. with 3¼ inch wind box pressure at 200% of boiler rating.



Stoker Fan installation at plant of Republic Iron & Steel Co.

The selection of a blower apparatus for a stoker installation, assuming that high speed direct connected fans are to be used, involves the questions of motor or turbine drive, overload capacities and reserve units. The best engineering suggests that some reserve capacity be installed and at least one spare blowing unit, inasmuch as natural draft cannot be depended upon to serve more than a very small fraction of the load. If the plant is a central power station with auxiliaries which are in the main driven by steam turbines from which the exhaust is put to service, the same method of drive is applicable and desirable for the blowers. The smaller sizes of Turbo Conoidal Fans operate at maximum speeds which correspond to those of the turbines, and for the large sizes reliable reduction gearing of the herringbone type has been developed; the turbine permits convenient automatic regulation of the speed for fluctuations in boiler pressure, so that a sudden demand for steam is quickly met by an increase in the speed of turbine. This is effected by a diaphragm valve in the main steam line operating direct or through a pilot valve which opens the throttle valve supplying steam to blower turbine.

Motor driven blowers may be driven by constant or variable speed motors. In the first case pressure is regulated entirely by dampers. Variable speed motors may be controlled by hand so as to supply the varying demand for steam or automatically by pressure operated rheostats. The larger the plant, the less advantage in variable speed, since changing steam requirements may be met by cutting blower units in or out, those units in operation meanwhile being kept within a range of capacity insuring good efficiency.

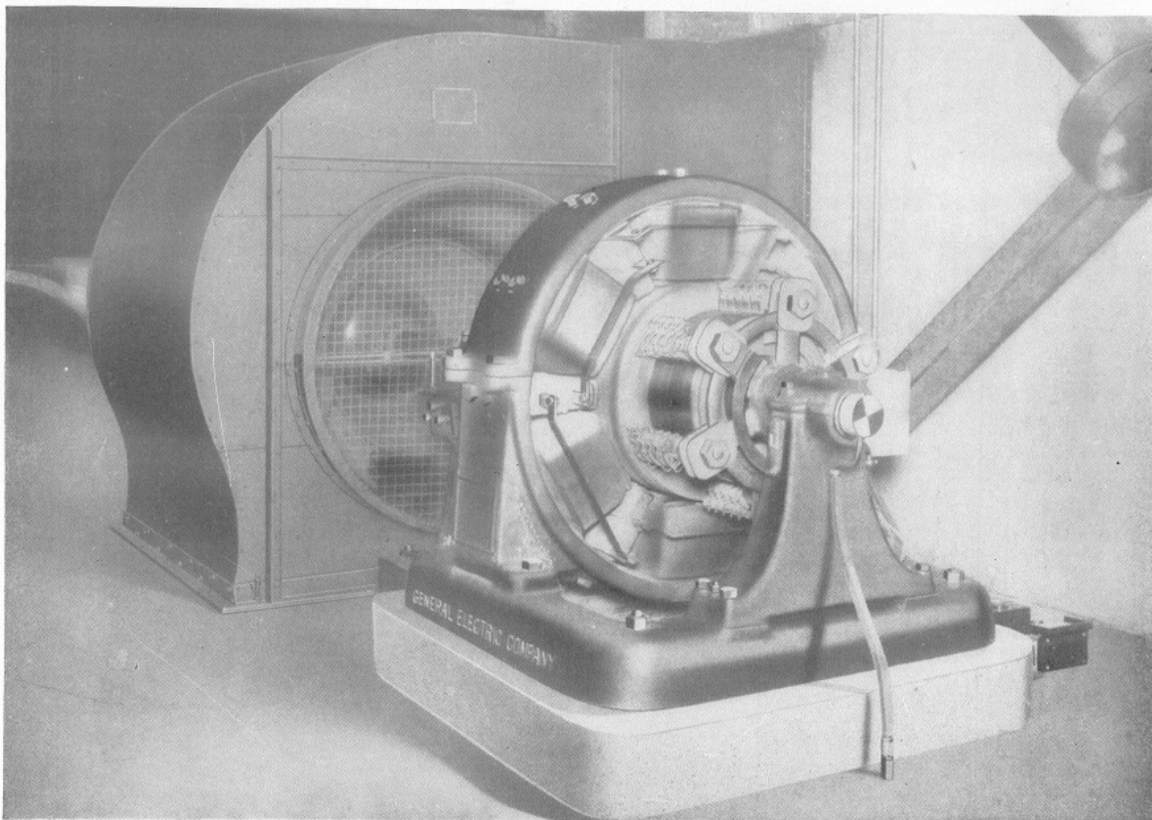


Cross-Section of U. E. L. & P. Co., Ashley Street Station, St. Louis

Buffalo Turbo Conoidal Fans suit these conditions well, since they have great overload capacity, the efficiency being well maintained over a wide range, and the increased capacity obtained with less reduction in pressure than with any other type of centrifugal blower. For this reason plants having a number of blower units connected so that any blower may serve any boiler do not need to make the investment for reserve capacity that would be required in a smaller plant nor with one having a few relatively large blowers. Local conditions suggest a variety of arrangements; thus a majority of the larger stations use a number of blower units connecting into one or more main ducts of sufficient area, each blower having a damper between the outlet and main duct; smaller plants use one or two blowers to handle the entire capacity, and one spare blower unit for reserve. The Connors Creek Plant has one blower for each 2365 H. P. boiler, and one spare unit for each pair of boilers.

Excess Air %	Efficiency of Boiler %	Lbs. Air per Pound of Combustible	Lbs. Combustible per Boiler H. P.	Lbs. Air per Hour per Boiler H. P.	Cu. Ft. Air per Min. per Boiler H. P. @ 70° F.
0	79.8	12.0	2.74	32.9	7.32
20	77.9	14.4	2.81	40.5	9.01
30	77.0	15.6	2.84	44.3	9.85
40	76.0	16.8	2.88	48.4	10.77
50	75.1	18.0	2.91	52.5	11.68
60	74.2	19.2	2.94	56.5	12.57
70	73.2	20.4	2.98	60.8	13.52
80	72.3	21.6	3.02	65.3	14.53
90	71.3	22.8	3.07	70.0	15.57
100	70.4	24.0	3.12	75.0	16.68

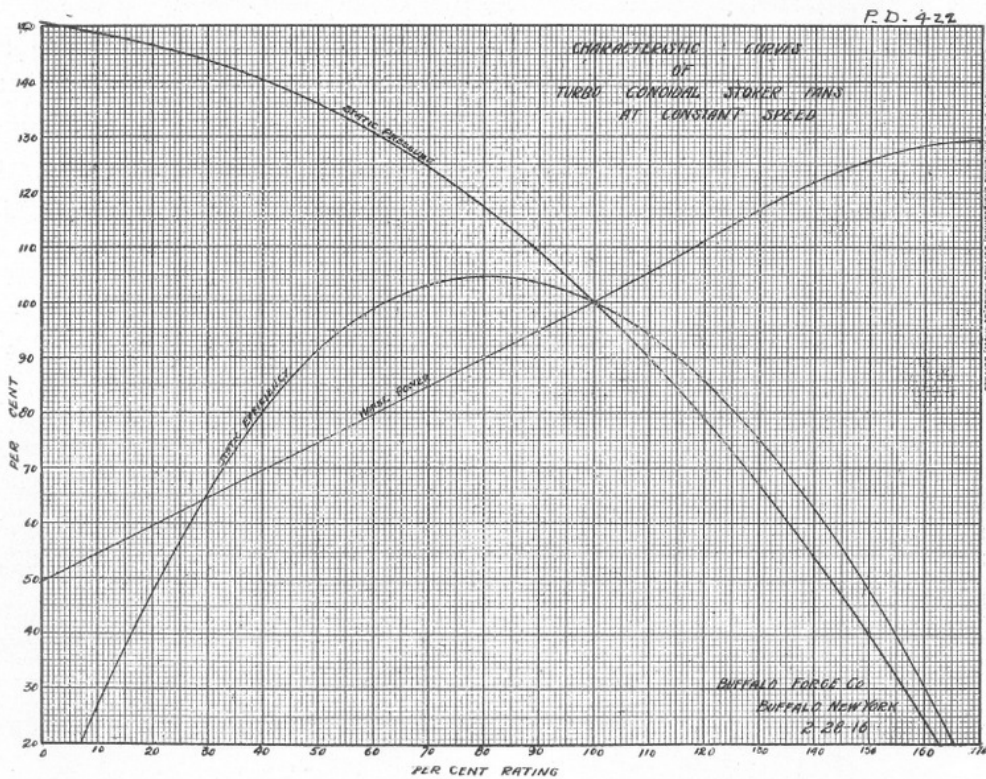
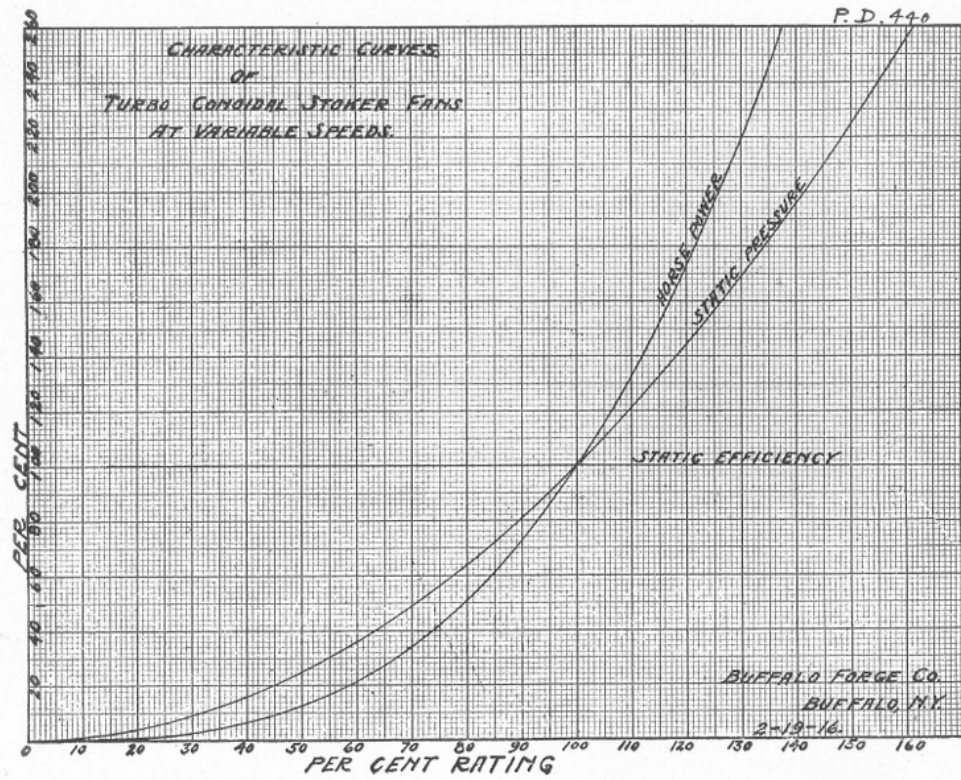




Motor driven Conoidal Fan at Connors Creek plant, Detroit Edison Co.

We quote from "*Power*" in reference to the Connors Creek plant of the Detroit Edison Company, probably the best known central power plant in the country, which is equipped throughout with Buffalo Turbo Conoidal Blowers.

"The Connors Creek Plant was planned for six 25,000 K. V. A. fans and twelve 2365 H. P. boilers. The first unit was started February 8, 1915, the second July 7, 1915, the third February 15, 1917, but the fourth and fifth units on account of development in large Turbo generators for Central Stations were decided upon as 50,000 K. V. A. each, or two 50,000 K. V. A. units instead of three 25,000 K. V. A. as originally planned and a total of 100,000 instead of 75,000. The blowers are driven by variable speed motors, and are designed to handle 74,000 cubic feet per minute each at  $6\frac{1}{2}$  inch static pressure, which is sufficient for operation at 300% of rated boiler horse power. Three fans are installed for each pair of boilers, one fan on each boiler for regular service, and the third fan which is connected so as to serve either one of the two boilers."



A list of the power plants in which Buffalo Turbo Conoidal Stoker Fans are in use would include nearly all of the central stations and large private installations made in the last five years. We will be glad to furnish names of users in any particular class of industry. As anything approaching a complete list would exceed the limit of space available, we will mention only a few typical cases, in all of which repeat orders have been placed since the original installation.

Detroit Edison Company, in the Connors Creek and Delray Power Stations, and 2 central heating plants—35 blowers in all.

Public Service Electric Co., in the Marion, Burlington and Essex Power Stations, N. J.

The Union Electric Light & Power Co., St. Louis—Ashley Street Station—13 blowers.

American Gas & Electric Co., Windsor, W. Va.—Several repeat orders—16 blowers in all.

West Penn Traction Co., Connellsville, Pa.—24 blowers.

Westinghouse Electric & Manufacturing Co., Essington, Pa.

Ford Motor Co.—Complete equipment in Detroit power plant, also for various assembling plants in the United States and Canada.

General Electric Co., Erie, Pa.

American Rolling Mill Co., Middletown, Ohio.

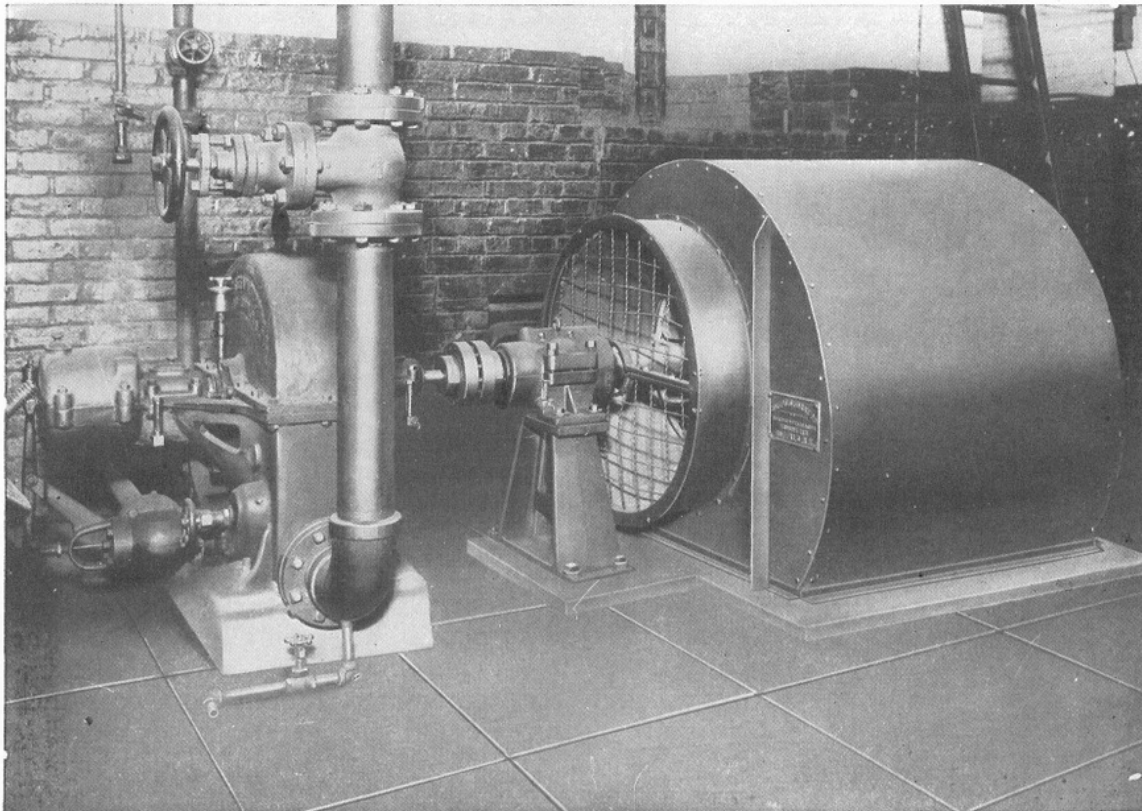
Union Stock Yards & Transit Company, Chicago, Ill.

Tennessee Coal, Iron & Ry. Co., Ensley, Ala.

Solvay Process Co., Syracuse and Detroit plants.

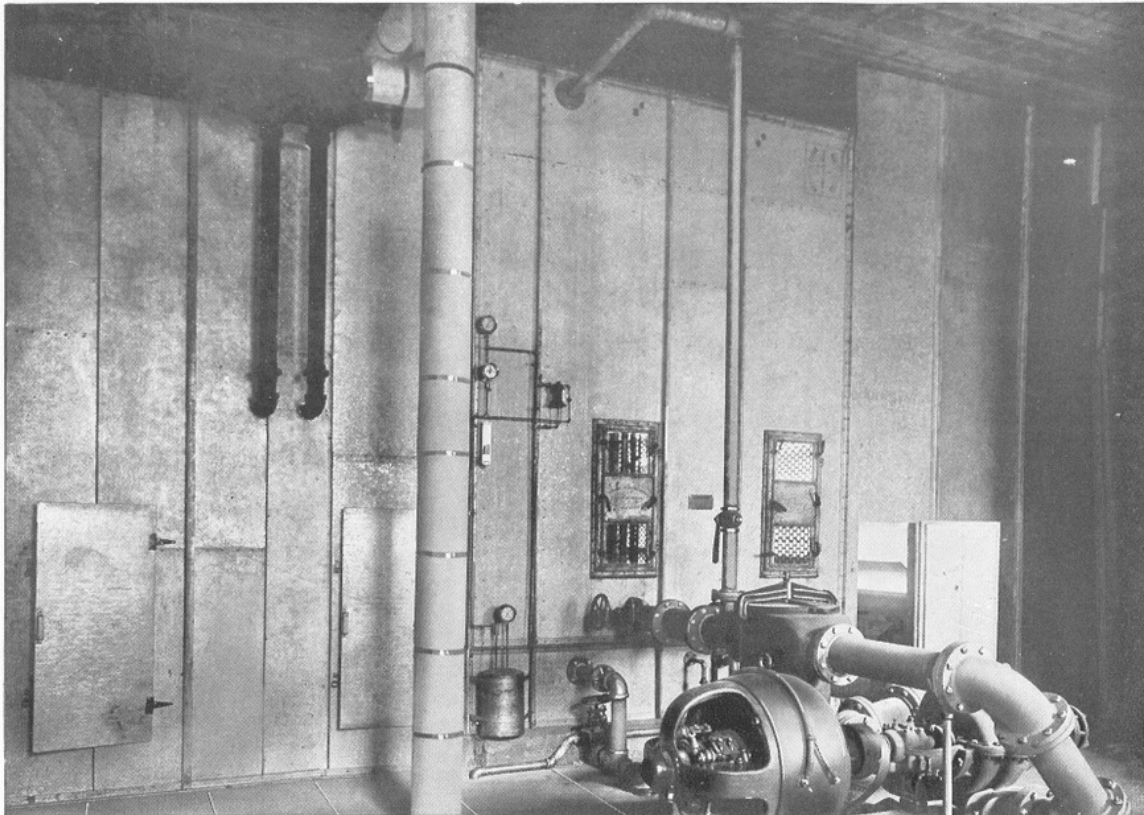
U. S. Navy Yard, Brooklyn, N. Y.

U. S. Proving Grounds, Indian Head, Md.



Installation at the plant of American Machine & Foundry Co.

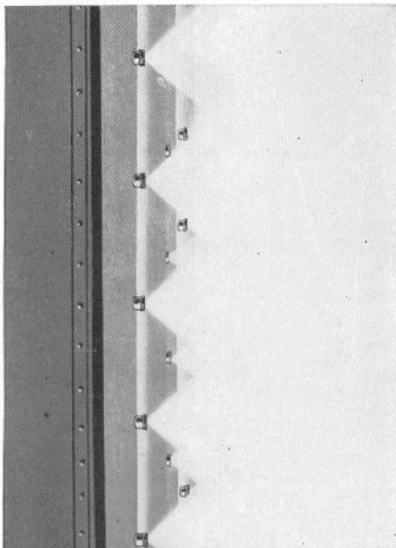




Carrier Air Washer installation showing humidity control and complete connection.

### Carrier Generator Coolers:

The capacity of modern turbo-generators is directly dependent on the air conditions, therefore an ample supply of cool clean air is of great importance. The dust or soot in the air soon collect on the windings, raising the internal temperature by their insulating action, and increasing the possibility of short circuits. Furthermore, the cooler the air delivered to a generator, the greater the load it can carry with safety; the output of a generator receiving air at 77° F. is 18% greater than with air at 100° F.



Nozzles and Spray Showing Evenness of Distribution.

Since for many locations an air filter of some kind is essential, it is highly desirable to use an apparatus which combines the greatest cleaning and cooling effect with the least resistance to the flow of air. The Carrier generator cooler is a self-contained apparatus of substantial construction, complete with all accessories for continuous operation. The combination of a large number of atomizing nozzles and the patented Carrier-type eliminator insures the maximum cooling and complete freedom from entrained moisture; water circulation is maintained by a double suction pump with horizontally split shell, motor driven through a flexible coupling. Experience having shown that flushing devices are undependable and



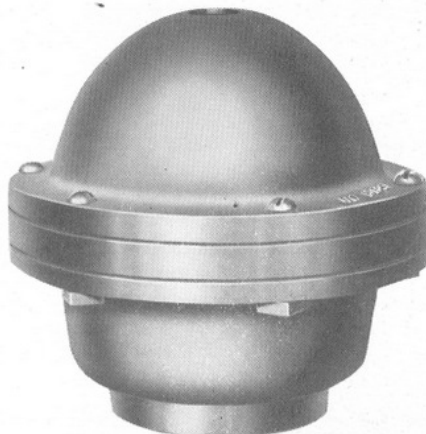
Cooling Pond at Buffalo Bolt Co.

that nozzles which depend on minute openings for the fineness of the spray produced will soon fall off in efficiency, the nozzles in the Carrier generator coolers are of the non-clogging type with relatively large openings and with removable caps which can be replaced readily and at small expense if the presence of acid in the water requires it. Catalog No. 253 shows full details.

### Spray Nozzles:

Buffalo Cooling Pond Nozzles for circulating water in surface condensers are made in various sizes and produce a uniformly distributed fine spray under low head. In cooling effect, minimum loss by windage, and small power required to operate, they compare favorably with any other cooling nozzle.

We would be glad to furnish layouts for cooling ponds and guarantee results. We manufacture and will quote on any quantity of nozzles for spraying liquids for paper and textile mills, acid and chemical plants, blast furnaces, and wherever a fine spray at a low head is desired. These nozzles are similar to those used for generator coolers and air washers, but are made in all sizes and of cast iron, brass, chemical bronze, hard lead, monel metal, stoneware and other special materials. Booklet No. 114 describes the uses and contains table of capacities.



Showing Close Up View of Cooling Pond Nozzle

## No. 2 Type "T" Double Width

Capacities, Speeds and Horse Powers of High Pressure Double Width Turbo-Conoidal  
Blowers for Underfeed Stokers and Similar Service

Outlet Velocity	A.P.M.	Add for Tot. Pres.	4" S. P.		4½" S. P.		5" S. P.		5½" S. P.		6" S. P.		6½" S. P.		7" S. P.	
			R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.
1600	1866	.160	3100	2.17	3260	2.49	3425	2.81	3570	3.14	3710	3.50	3855	3.85	3990	4.22
1800	2100	.202	3160	2.39	3320	2.72	3470	3.06	3620	3.40	3755	3.76	3900	4.13	4030	4.50
2000	2330	.250	3210	2.62	3375	2.97	3525	3.32	3675	3.68	3810	4.06	3945	4.44	4070	4.84
2200	2566	.302	3280	2.88	3435	3.24	3585	3.60	3730	3.99	3860	4.38	3995	4.77	4130	5.18
2400	2800	.360	3340	3.16	3500	3.54	3650	3.93	3790	4.32	3925	4.72	4055	5.14	4185	5.56
2600	3030	.422	3410	3.47	3565	3.87	3710	4.27	3850	4.68	3990	5.10	4120	5.53	4240	5.96
2800	3266	.489	3495	3.80	3635	4.21	3780	4.54	3915	5.08	4050	5.51	4175	5.95	4300	6.41
3000	3500	.560	3575	4.17	3715	4.60	3850	5.04	3980	5.49	4120	5.94	4250	6.42	4360	6.88
3200	3730	.638	3655	4.55	3800	5.01	3930	5.47	4055	5.94	4190	6.42	4315	6.69	4425	7.39
3400	3966	.721	3745	4.98	3880	5.45	4010	5.93	4130	6.42	4270	6.92	4380	7.42	4500	7.92
3600	4200	.808	3830	5.45	3970	5.93	4090	6.42	4220	6.94	4345	7.45	4455	7.97	4575	8.50
3800	4432	.890	3930	5.95	4060	6.45	4185	6.96	4305	7.49	4425	8.02	4540	8.56	4650	9.09
4000	4666	.995	4025	6.51	4150	7.01	4280	7.54	4390	8.08	4515	8.62	4620	9.18	4735	9.75
4200	4900	1.098	4120	7.09	4245	7.63	4370	8.17	4485	8.73	4605	9.28	4710	9.84	4820	10.43
4400	5132	1.204	4215	7.71	4340	8.28	4470	8.84	4575	9.40	4700	9.97	4800	10.57	4915	11.15
4600	5366	1.317	4315	8.38	4445	8.97	4565	9.55	4680	10.14	4795	10.73	4890	11.32	5000	11.94
4800	5600	1.432	4425	9.13	4545	9.72	4660	10.29	4770	10.92	4885	11.54	4990	12.14	5100	12.79
5000	5832	1.552	4540	9.90	4650	10.52	4765	11.11	4865	11.72	4980	12.40	5090	13.00	5190	13.67
5200	6066	1.679	4650	10.74	4755	11.35	4870	11.96	4970	12.63	5080	13.29	5180	13.98	5280	14.59
5400	6300	1.812	4755	11.60	4865	12.27	4980	12.94	5065	13.54	5175	14.35	5275	14.92	5370	15.59
5600	6532	1.950	4875	12.55	4970	13.20	5090	13.90	5175	14.54	5280	15.23	5370	15.92	5470	16.65

## No. 2½ Type "T" Double Width

Capacities, Speeds and Horse Powers of High Pressure Double Width Turbo-Conoidal  
Blowers for Underfeed Stokers and Similar Service

Outlet Velocity	A.P.M.	Add for Tot. Pres.	4" S. P.		4½" S. P.		5" S. P.		5½" S. P.		6" S. P.		6½" S. P.		7" S. P.	
			R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.
1600	2920	.160	2480	3.4	2608	3.9	2740	4.4	2856	4.9	2968	5.5	3084	6.0	3192	6.6
1800	3280	.202	2528	3.7	2656	4.3	2776	4.8	2896	5.3	3004	5.9	3120	6.5	3224	7.0
2000	3650	.250	2568	4.1	2700	4.6	2820	5.2	2940	5.8	3048	6.3	3156	6.9	3256	7.6
2200	4010	.302	2624	4.5	2748	5.1	2868	5.6	2984	6.2	3088	6.8	3196	7.5	3304	8.1
2400	4380	.360	2672	4.9	2800	5.5	2920	6.1	3032	6.8	3140	7.4	3244	8.0	3348	8.7
2600	4740	.422	2728	5.4	2852	6.0	2968	6.7	3080	7.3	3192	8.0	3296	8.6	3392	9.3
2800	5100	.489	2796	5.9	2908	6.6	3024	7.3	3132	7.9	3240	8.6	3340	9.3	3440	10.0
3000	5470	.560	2860	6.5	2972	7.2	3080	7.9	3184	8.6	3296	9.3	3400	10.0	3488	10.8
3200	5830	.638	2924	7.1	3040	7.8	3144	8.5	3244	9.3	3352	10.0	3452	10.8	3540	11.6
3400	6200	.721	2996	7.8	3104	8.5	3208	9.3	3304	10.0	3416	10.8	3504	11.6	3600	12.4
3600	6560	.808	3064	8.5	3176	9.3	3272	10.0	3376	10.8	3476	11.6	3564	12.5	3660	13.3
3800	6930	.890	3144	9.3	3248	10.1	3348	10.9	3444	11.7	3540	12.5	3632	13.4	3720	14.2
4000	7290	.995	3220	10.2	3320	11.0	3424	11.8	3512	12.6	3612	13.5	3696	14.3	3788	15.2
4200	7660	1.098	3296	11.1	3396	11.9	3496	12.8	3588	13.6	3684	14.5	3768	15.4	3856	16.3
4400	8020	1.204	3372	12.1	3472	12.9	3576	13.8	3660	14.7	3760	15.6	3840	16.5	3932	17.4
4600	8380	1.317	3452	13.1	3556	14.0	3652	14.9	3744	15.9	3836	16.8	3912	17.7	4000	18.7
4800	8750	1.432	3540	14.3	3636	15.2	3728	16.1	3816	17.1	3908	18.0	3992	19.0	4080	20.0
5000	9110	1.552	3632	15.5	3720	16.4	3812	17.4	3892	18.3	3984	19.4	4072	20.3	4152	21.4
5200	9480	1.679	3720	16.8	3804	17.7	3896	18.7	3976	19.7	4064	20.8	4144	21.9	4224	22.8
5400	9840	1.812	3804	18.1	3892	19.2	3984	20.2	4052	21.2	4140	22.4	4220	23.3	4296	24.4
5600	10200	1.950	3900	19.6	3976	20.6	4072	21.7	4140	22.7	4224	23.8	4290	24.9	4376	26.0



### No. 3 Type "T" Double Width

Capacities, Speeds and Horse Powers of High Pressure Double Width Turbo-Conoidal Blowers for Underfeed Stokers and Similar Service

Outlet Velocity	A.P.M.	Add for Tot. Pres.	4" S. P.		4½" S. P.		5" S. P.		5½" S. P.		6" S. P.		6½" S. P.		7" S. P.	
			R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.
1600	4200	.160	2067	4.9	2137	5.6	2283	6.3	2380	7.1	2473	7.9	2570	8.7	2660	9.9
1800	4724	.202	2107	5.4	2213	6.1	2313	6.9	2413	7.7	2503	8.5	2600	9.3	2687	10.1
2000	5250	.250	2140	5.9	2250	6.7	2350	7.5	2450	8.3	2540	9.1	2630	10.0	2714	10.9
2200	5774	.302	2187	6.5	2290	7.3	2390	8.1	2487	9.0	2573	9.9	2663	10.7	2753	11.7
2400	6300	.360	2227	7.1	2333	8.0	2433	8.8	2527	9.7	2617	10.6	2703	11.6	2790	12.5
2600	6824	.422	2273	7.8	2377	8.7	2473	9.6	2567	10.5	2660	11.5	2747	12.4	2827	13.4
2800	7350	.489	2330	8.6	2423	9.5	2520	10.4	2610	11.4	2700	12.4	2785	13.4	2867	14.4
3000	7874	.560	2383	9.4	2477	10.4	2567	11.3	2653	12.4	2747	13.4	2833	14.4	2907	15.5
3200	8400	.638	2437	10.3	2533	11.3	2620	12.3	2703	13.4	2793	14.4	2877	15.5	2950	16.6
3400	8924	.721	2497	11.2	2587	12.3	2674	13.4	2753	14.4	2847	15.6	2920	16.7	3000	17.8
3600	9448	.808	2553	12.3	2647	13.3	2727	14.5	2813	15.6	2897	16.8	2970	17.9	3050	19.1
3800	9972	.890	2620	13.4	2707	14.5	2790	15.7	2870	16.9	2950	18.0	3027	19.3	3100	20.5
4000	10498	.995	2683	14.7	2767	15.8	2853	17.0	2927	18.2	3010	19.4	3080	20.7	3157	21.9
4200	11022	1.098	2747	16.0	2830	17.2	2913	18.4	2990	19.6	3070	20.9	3140	22.2	3214	23.5
4400	11548	1.204	2810	17.4	2893	18.6	2980	19.9	3050	21.1	3133	22.4	3200	23.8	3277	25.1
4600	12072	1.317	2877	18.9	2963	20.2	3043	21.5	3120	22.8	3197	24.2	3260	25.5	3334	26.9
4800	12598	1.432	2950	20.6	3030	21.9	3107	23.2	3180	24.6	3257	26.0	3327	27.3	3400	28.8
5000	13122	1.552	3027	22.3	3100	23.7	3177	25.0	3243	26.4	3320	27.9	3393	29.3	3460	30.8
5200	13646	1.679	3100	24.2	3170	25.5	3247	26.9	3313	28.4	3383	29.9	3453	31.5	3520	32.8
5400	14172	1.812	3170	26.1	3243	27.6	3320	29.1	3377	30.5	3450	32.3	3517	33.6	3580	35.1
5600	14698	1.950	3250	28.2	3313	29.7	3393	31.3	3450	32.7	3520	34.3	3580	35.8	3647	37.5

### No. 3½ Type "T" Double Width

Capacities, Speeds and Horse Powers of High Pressure Double Width Turbo-Conoidal Blowers for Underfeed Stokers and Similar Service

Outlet Velocity	A.P.M.	Add for Tot. Pres.	4" S. P.		4½" S. P.		5" S. P.		5½" S. P.		6" S. P.		6½" S. P.		7" S. P.	
			R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.
1600	5720	.160	1772	6.65	1863	7.62	1957	8.61	2040	9.63	2120	10.71	2203	11.79	2280	12.93
1800	6430	.202	1806	7.31	1897	8.33	1983	9.37	2069	10.42	2146	11.52	2229	12.66	2303	13.78
2000	7150	.250	1834	8.02	1929	9.09	2014	10.16	2100	11.28	2177	12.42	2254	13.59	2326	14.82
2200	7860	.302	1874	8.81	1963	9.92	2049	11.04	2132	12.21	2206	13.40	2283	14.61	2360	15.85
2400	8570	.360	1909	9.69	2000	10.84	2086	12.02	2166	13.23	2243	14.46	2317	15.73	2392	17.02
2600	9290	.422	1949	10.62	2037	11.83	2120	13.07	2200	14.33	2280	15.62	2354	16.93	2423	18.26
2800	10000	.489	1997	11.64	2077	12.90	2160	14.20	2237	15.55	2314	16.88	2386	18.24	2457	19.63
3000	10720	.560	2043	12.78	2123	14.09	2200	15.44	2274	16.81	2354	18.19	2429	19.64	2491	21.07
3200	11430	.638	2089	13.94	2172	15.34	2246	16.75	2317	18.19	2395	19.64	2466	21.11	2529	22.64
3400	12150	.721	2140	15.25	2217	16.67	2292	18.17	2360	19.65	2440	21.20	2503	22.71	2571	24.27
3600	12860	.808	2189	16.68	2269	18.16	2337	19.67	2411	21.24	2483	22.81	2546	24.40	2614	26.03
3800	13570	.890	2246	18.22	2320	19.75	2392	21.32	2460	22.93	2529	24.55	2594	26.20	2657	27.83
4000	14290	.995	2300	19.94	2371	21.45	2446	23.08	2509	24.75	2580	26.40	2640	28.11	2706	29.85
4200	15000	1.098	2354	21.71	2426	23.36	2497	25.00	2563	26.73	2631	28.43	2692	30.15	2754	31.95
4400	15720	1.204	2409	23.62	2480	25.37	2554	27.06	2614	28.78	2686	30.53	2743	32.35	2809	34.14
4600	16430	1.317	2466	25.68	2540	27.46	2609	29.25	2675	31.07	2740	32.87	2794	34.67	2857	36.56
4800	17150	1.432	2529	27.97	2597	29.78	2663	31.52	2726	33.44	2791	35.34	2852	37.17	2914	39.18
5000	17860	1.552	2594	30.32	2657	32.22	2723	34.03	2780	35.90	2846	37.98	2908	39.82	2966	41.86
5200	18570	1.679	2657	32.87	2717	34.75	2783	36.64	2840	38.67	2903	40.70	2960	42.82	3017	44.68
5400	19290	1.812	2717	35.53	2780	37.57	2846	39.64	2894	41.47	2957	43.95	3014	45.09	3069	47.75
5600	20000	1.950	2786	38.42	2840	40.43	2908	42.57	2957	44.54	3017	46.65	3069	48.76	3126	51.00

## No. 4 Type "T" Double Width

Capacities, Speeds and Horse Powers of High Pressure Double Width Turbo-Conoidal  
Blowers for Underfeed Stokers and Similar Service

Outlet Velocity	A.P.M.	Add for Tot. Pres.	4" S. P.		4½" S. P.		5" S. P.		5½" S. P.		6" S. P.		6½" S. P.		7" S. P.	
			R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.
1600	7470	.160	1550	8.7	1630	10.0	1713	11.3	1785	12.6	1855	14.0	1927	15.4	1995	16.9
1800	8400	.202	1580	9.6	1660	10.9	1735	12.2	1810	13.6	1878	15.0	1950	16.5	2015	18.0
2000	9330	.250	1605	10.5	1688	11.9	1763	13.3	1838	14.7	1905	16.2	1973	17.7	2035	19.4
2200	10260	.302	1640	11.5	1718	13.0	1793	14.4	1865	16.0	1930	17.5	1998	19.1	2065	20.7
2400	11200	.360	1670	12.7	1750	14.2	1825	15.7	1895	17.3	1963	18.9	2028	20.6	2093	22.2
2600	12130	.422	1705	13.9	1783	15.5	1855	17.1	1925	18.7	1995	20.4	2060	22.1	2120	23.9
2800	13060	.489	1748	15.2	1818	16.9	1890	18.6	1958	20.3	2025	22.1	2088	23.8	2150	25.6
3000	14000	.560	1788	16.7	1858	18.4	1925	20.2	1990	22.0	2060	23.8	2125	25.7	2180	27.6
3200	14930	.638	1828	18.2	1900	20.0	1965	21.9	2028	23.8	2095	25.7	2157	27.6	2213	29.6
3400	15860	.721	1873	19.9	1940	21.8	2005	23.7	2065	25.7	2135	27.7	2190	29.7	2250	31.7
3600	16800	.808	1915	21.8	1985	23.7	2045	25.7	2110	27.8	2173	29.8	2228	31.9	2288	34.0
3800	17730	.890	1965	23.8	2030	25.8	2093	27.8	2153	30.0	2213	32.1	2270	34.2	2325	36.4
4000	18660	.995	2013	26.1	2075	28.0	2140	30.2	2195	32.3	2258	34.5	2310	36.7	2367	39.0
4200	19590	1.098	2060	28.4	2123	30.5	2185	32.7	2243	34.9	2303	37.1	2355	39.4	2410	41.7
4400	20530	1.204	2108	30.9	2170	33.1	2235	35.3	2288	37.6	2350	39.9	2400	42.3	2457	44.6
4600	21460	1.317	2158	33.5	2223	35.9	2283	38.2	2340	40.6	2397	42.9	2445	45.3	2500	47.8
4800	22400	1.432	2213	36.5	2273	38.9	2330	41.2	2385	43.7	2442	46.2	2495	48.6	2550	51.2
5000	23330	1.552	2270	39.6	2325	42.1	2383	44.5	2433	46.9	2490	49.6	2545	52.0	2595	54.7
5200	24260	1.679	2325	42.9	2378	45.4	2435	47.9	2485	50.5	2540	53.1	2590	55.9	2640	58.4
5400	25190	1.812	2378	46.4	2433	49.1	2490	51.8	2533	54.2	2588	57.4	2638	59.7	2685	62.4
5600	26130	1.950	2438	50.2	2485	52.8	2545	55.6	2588	58.2	2640	60.9	2685	63.7	2735	66.6

## No. 4½ Type "T" Double Width

Capacities, Speeds and Horse Powers of High Pressure Double Width Turbo-Conoidal  
Blowers for Underfeed Stokers and Similar Service

Outlet Velocity	A.P.M.	Add for Tot. Pres.	4" S. P.		4½" S. P.		5" S. P.		5½" S. P.		6" S. P.		6½" S. P.		7" S. P.	
			R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.
1600	9450	.160	1378	11.0	1449	12.6	1522	14.2	1587	15.9	1649	17.7	1713	19.5	1773	21.4
1800	10610	.202	1405	12.1	1476	13.8	1542	15.5	1609	17.2	1669	19.0	1733	20.9	1791	22.8
2000	11820	.250	1427	13.3	1500	15.1	1567	16.8	1633	18.7	1693	20.5	1753	22.5	1809	24.5
2200	12990	.302	1458	14.6	1527	16.4	1593	18.3	1658	20.2	1716	22.2	1776	24.2	1836	26.2
2400	14170	.360	1484	16.0	1556	17.9	1622	19.9	1684	21.9	1744	23.9	1802	26.0	1860	28.1
2600	15350	.422	1516	17.6	1585	19.6	1649	21.6	1711	23.7	1773	25.8	1831	28.0	1885	30.2
2800	16540	.489	1553	19.2	1616	21.3	1680	23.5	1740	25.7	1800	27.9	1856	30.2	1911	32.4
3000	17710	.560	1589	21.1	1651	23.3	1711	25.5	1769	27.8	1831	30.1	1889	32.5	1938	34.8
3200	18900	.638	1624	23.0	1689	25.4	1747	27.7	1802	30.1	1862	32.5	1918	34.9	1967	37.4
3400	20080	.721	1664	25.2	1725	27.6	1782	30.0	1836	32.9	1898	35.0	1947	37.5	2000	40.1
3600	21260	.808	1702	27.6	1765	30.0	1818	32.5	1876	35.1	1931	37.7	1980	40.3	2033	43.0
3800	22440	.890	1747	30.1	1805	32.6	1860	35.2	1913	37.9	1967	40.6	2018	43.3	2067	46.0
4000	23620	.995	1789	33.0	1845	35.5	1902	38.1	1951	40.9	2007	43.6	2053	46.5	2105	49.4
4200	24800	1.098	1831	35.9	1887	38.6	1942	41.3	1993	44.2	2047	47.0	2093	49.8	2142	52.8
4400	25960	1.204	1873	39.0	1929	41.9	1987	44.7	2033	47.6	2089	50.5	2133	53.5	2185	56.4
4600	27160	1.317	1918	42.4	1976	45.4	2029	48.4	2080	51.4	2131	54.3	2173	57.3	2222	60.4
4800	28340	1.432	1967	46.2	2020	49.2	2071	52.1	2120	55.3	2171	58.4	2218	61.4	2267	64.8
5000	29520	1.552	2018	50.1	2067	53.3	2118	56.3	2162	59.3	2213	62.8	2262	65.8	2307	69.2
5200	30710	1.679	2067	54.3	2113	57.4	2165	60.6	2209	63.9	2258	67.3	2302	70.8	2347	73.9
5400	31890	1.812	2113	58.7	2164	62.1	2213	65.5	2251	68.5	2300	72.7	2345	75.5	2387	78.9
5600	33070	1.950	2167	63.5	2209	66.8	2262	70.4	2300	73.6	2347	77.1	2387	80.6	2431	84.3

## No. 5 Type "T" Double Width

Capacities, Speeds and Horse Powers of High Pressure Double Width Turbo-Conoidal  
Blowers for Underfeed Stokers and Similar Service

Outlet Velocity	A.P.M.	Add for Tot. Pres.	4" S. P.		4½" S. P.		5" S. P.		5½" S. P.		6" S. P.		6½" S. P.		7" S. P.	
			R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.
1600	11670	.160	1240	13.6	1304	15.6	1370	17.6	1428	19.7	1484	21.9	1542	24.1	1596	26.4
1800	13130	.202	1264	14.9	1328	17.0	1388	19.1	1448	21.3	1502	23.5	1560	25.8	1612	28.1
2000	14580	.250	1284	16.4	1350	18.6	1410	20.7	1470	23.0	1524	25.4	1578	27.7	1628	30.3
2200	16040	.302	1312	18.0	1374	20.3	1434	22.5	1492	24.9	1544	27.4	1598	29.8	1652	32.4
2400	17500	.360	1336	19.8	1400	22.1	1460	24.5	1516	27.0	1570	29.5	1622	32.1	1674	34.7
2600	18960	.422	1364	21.7	1426	24.1	1484	26.7	1540	29.3	1596	31.9	1648	34.6	1696	37.3
2800	20420	.489	1398	23.8	1454	26.3	1512	29.0	1566	31.7	1620	34.5	1670	37.2	1720	40.1
3000	21870	.560	1430	26.1	1486	28.8	1540	31.5	1592	34.3	1648	37.1	1700	40.1	1744	43.0
3200	23330	.638	1462	28.5	1520	31.3	1572	34.2	1622	37.1	1676	40.1	1726	43.1	1770	46.2
3400	24790	.721	1498	31.1	1552	34.0	1604	37.1	1652	40.1	1708	43.3	1752	46.4	1800	49.5
3600	26250	.808	1532	34.0	1588	37.1	1636	40.2	1688	43.4	1738	46.6	1782	49.8	1830	53.1
3800	27700	.890	1572	37.2	1624	40.3	1674	43.5	1722	46.8	1770	50.1	1816	53.5	1860	56.8
4000	29160	.995	1610	40.7	1660	43.8	1712	47.1	1756	50.5	1806	53.9	1848	57.4	1894	60.9
4200	30620	1.098	1648	44.3	1698	47.7	1748	51.0	1794	54.6	1842	58.0	1884	61.5	1928	65.2
4400	32100	1.204	1686	48.2	1736	51.8	1788	55.2	1830	58.7	1880	62.3	1920	66.0	1966	69.7
4600	33530	1.317	1726	52.4	1778	56.1	1826	59.7	1872	63.4	1918	67.1	1956	70.8	2000	74.6
4800	34990	1.432	1770	57.1	1818	60.8	1864	64.3	1908	68.3	1954	72.1	1996	75.9	2040	80.0
5000	36450	1.552	1816	61.9	1860	65.8	1906	69.5	1946	73.3	1992	77.5	2036	81.3	2076	85.4
5200	37910	1.679	1860	67.1	1902	70.9	1948	74.8	1988	78.9	2032	83.1	2072	87.4	2112	91.2
5400	39370	1.812	1902	72.5	1946	76.7	1992	80.9	2026	84.6	2070	89.7	2110	93.3	2148	97.5
5600	40830	1.950	1950	78.4	1988	82.5	2036	86.9	2070	90.9	2112	95.2	2148	99.5	2188	104.1

## No. 5½ Type "T" Double Width

Capacities, Speeds and Horse Powers of High Pressure Double Width Turbo-Conoidal  
Blowers for Underfeed Stokers and Similar Service

Outlet Velocity	A.P.M.	Add for Tot. Pres.	4" S. P.		4½" S. P.		5" S. P.		5½" S. P.		6" S. P.		6½" S. P.		7" S. P.	
			R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.
1600	14140	.160	1127	16.4	1185	18.8	1245	21.3	1298	23.8	1349	26.5	1402	29.1	1450	31.9
1800	15880	.202	1149	18.1	1207	20.7	1262	23.2	1316	25.8	1365	28.4	1418	31.2	1464	34.1
2000	17640	.250	1167	19.8	1227	22.5	1282	25.1	1336	27.9	1385	30.6	1435	33.5	1478	36.6
2200	19400	.302	1193	21.8	1249	24.5	1304	27.3	1356	30.2	1404	33.1	1453	36.1	1500	39.0
2400	21170	.360	1215	24.0	1273	26.8	1327	29.8	1378	32.7	1427	35.7	1475	38.9	1520	42.0
2600	22930	.422	1240	26.2	1296	29.2	1349	32.4	1400	35.4	1451	38.5	1498	41.9	1541	45.1
2800	24700	.489	1271	28.7	1322	31.8	1375	35.1	1424	38.5	1473	41.6	1518	45.0	1562	48.5
3000	26460	.560	1300	31.6	1351	34.9	1400	38.2	1447	41.5	1498	44.9	1545	48.6	1583	52.0
3200	28230	.638	1329	34.3	1382	38.0	1429	41.5	1475	45.0	1524	48.6	1569	52.2	1609	55.9
3400	29990	.721	1362	37.7	1411	41.3	1458	45.0	1502	48.6	1553	52.2	1593	56.0	1635	60.0
3600	31750	.808	1393	41.3	1444	45.0	1487	48.7	1535	52.2	1580	56.4	1620	60.5	1663	64.1
3800	33520	.890	1429	45.1	1476	48.8	1522	52.7	1565	56.6	1609	60.8	1651	64.8	1690	68.9
4000	35280	.995	1464	49.4	1509	53.0	1556	57.0	1596	61.1	1642	65.1	1680	69.5	1720	73.5
4200	37040	1.098	1498	53.7	1544	57.8	1589	61.0	1631	66.0	1675	70.1	1713	74.5	1751	79.0
4400	38810	1.204	1533	58.3	1578	62.7	1625	66.9	1664	71.0	1709	75.2	1745	80.0	1787	84.0
4600	40580	1.317	1569	63.4	1616	68.0	1660	72.4	1702	76.5	1744	81.1	1778	85.7	1816	90.0
4800	42340	1.432	1609	69.2	1653	73.7	1695	77.9	1735	82.5	1776	87.1	1815	91.9	1854	96.8
5000	44100	1.552	1651	75.0	1691	79.8	1733	84.2	1769	88.6	1811	93.9	1851	98.4	1881	103.5
5200	45870	1.679	1691	81.3	1729	86.0	1771	90.7	1809	95.4	1847	100.5	1884	105.9	1920	110.0
5400	47630	1.812	1729	87.8	1769	93.0	1811	97.9	1842	102.1	1882	108.3	1918	112.7	1953	117.8
5600	49400	1.950	1773	94.8	1807	99.8	1851	105.2	1882	109.9	1920	115.2	1953	120.2	1989	126.1



## No. 6 Type "T" Double Width

Capacities, Speeds and Horse Powers of High Pressure Double Width Turbo-Conoidal  
Blowers for Underfeed Stokers and Similar Service

Outlet Velocity	A.P.M.	Add for Tot. Pres.	4" S. P.		4½" S. P.		5" S. P.		5½" S. P.		6" S. P.		6½" S. P.		7" S. P.	
			R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.
1600	16800	.160	1033	19.6	1087	22.5	1142	25.4	1190	28.3	1237	31.5	1285	34.6	1330	37.9
1800	18895	.202	1053	21.4	1107	24.6	1157	27.6	1207	30.7	1252	33.8	1300	37.2	1343	40.5
2000	21000	.250	1070	23.6	1125	26.9	1175	29.8	1225	33.2	1270	36.5	1315	39.9	1357	43.6
2200	23092	.302	1093	25.8	1145	29.2	1195	32.5	1243	35.9	1287	39.4	1332	42.9	1377	46.6
2400	25190	.360	1113	28.6	1167	31.9	1217	35.4	1263	38.9	1308	42.5	1352	46.2	1395	50.0
2600	27295	.422	1137	31.3	1188	34.7	1237	38.5	1283	42.1	1330	45.9	1373	49.8	1413	53.7
2800	29395	.489	1165	34.2	1212	37.7	1260	41.7	1305	45.9	1350	49.6	1392	53.6	1433	57.7
3000	31490	.560	1192	37.6	1238	41.4	1283	45.4	1327	49.4	1373	53.5	1417	57.7	1453	61.9
3200	33590	.638	1218	40.7	1266	45.0	1310	49.4	1352	53.5	1397	57.8	1438	62.1	1475	66.5
3400	35690	.721	1248	44.9	1293	49.0	1337	53.5	1377	57.7	1423	62.2	1460	66.7	1500	71.3
3600	37785	.808	1277	49.1	1323	53.5	1363	57.9	1407	62.4	1448	67.1	1485	71.7	1525	76.5
3800	39885	.890	1310	53.6	1353	58.0	1395	62.8	1435	67.4	1475	72.1	1513	77.0	1550	81.8
4000	41990	.995	1342	58.7	1383	63.0	1426	68.0	1463	72.7	1505	77.6	1540	82.6	1578	87.7
4200	44080	1.098	1373	63.8	1415	68.8	1457	73.8	1495	78.5	1535	83.5	1570	88.6	1606	93.9
4400	46190	1.204	1405	69.4	1447	74.9	1490	79.6	1525	84.5	1567	89.7	1600	95.0	1638	100.3
4600	48285	1.317	1438	75.5	1482	80.9	1522	86.0	1560	91.3	1598	96.6	1630	101.9	1667	107.5
4800	50390	1.432	1475	82.1	1515	87.5	1553	92.9	1590	98.3	1628	104.0	1663	109.1	1700	115.1
5000	52490	1.552	1513	89.0	1550	94.9	1588	100.0	1621	105.5	1660	111.6	1697	117.0	1730	123.0
5200	54585	1.679	1550	96.5	1585	102.0	1623	108.0	1657	113.7	1693	119.6	1727	125.8	1760	131.3
5400	56690	1.812	1585	104.1	1622	110.2	1660	116.1	1688	121.9	1725	129.1	1758	134.3	1790	140.3
5600	58790	1.950	1625	112.9	1657	119.0	1697	125.4	1725	131.0	1760	137.2	1790	143.3	1823	150.0

## No. 6½ Type "T" Double Width

Capacities, Speeds and Horse Powers of High Pressure Double Width Turbo-Conoidal  
Blowers for Underfeed Stokers and Similar Service

Outlet Velocity	A.P.M.	Add for Tot. Pres.	4" S. P.		4½" S. P.		5" S. P.		5½" S. P.		6" S. P.		6½" S. P.		7" S. P.	
			R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.
1600	19710	.160	954	22.9	1003	26.3	1054	29.7	1099	33.2	1142	36.9	1186	40.6	1228	44.6
1800	22180	.202	972	25.2	1022	28.7	1068	32.3	1114	36.0	1155	39.7	1200	43.7	1240	47.5
2000	24640	.250	988	27.7	1039	31.4	1085	35.0	1131	38.9	1172	42.8	1214	46.9	1253	51.1
2200	27100	.302	1009	30.4	1057	34.2	1103	38.1	1148	42.1	1188	46.2	1230	50.4	1271	54.7
2400	29570	.360	1028	33.4	1077	37.4	1123	41.5	1166	45.6	1208	49.9	1248	54.3	1288	58.7
2600	32030	.422	1049	33.6	1097	40.8	1142	45.1	1185	49.4	1228	53.8	1268	58.4	1305	63.0
2800	34500	.489	1075	40.1	1119	44.5	1163	49.0	1205	53.6	1246	58.2	1285	62.9	1323	67.7
3000	36960	.560	1100	44.1	1143	48.6	1185	53.2	1225	57.9	1268	62.7	1308	67.8	1342	72.7
3200	39420	.638	1125	48.1	1169	52.9	1209	57.8	1248	62.7	1289	67.8	1328	72.8	1362	78.1
3400	41880	.721	1152	52.6	1194	57.5	1234	62.6	1271	67.7	1314	73.1	1348	78.3	1385	83.7
3600	44350	.808	1178	57.5	1222	62.6	1259	67.9	1299	73.2	1337	78.6	1371	84.2	1408	89.8
3800	46820	.890	1209	62.8	1249	68.1	1288	73.5	1325	79.1	1362	84.7	1397	90.4	1431	96.0
4000	49280	.995	1239	68.8	1277	74.0	1317	79.6	1351	85.3	1389	91.0	1422	97.0	1457	103.0
4200	51740	1.098	1268	74.8	1306	80.6	1345	86.2	1380	92.2	1417	98.1	1450	104.0	1483	110.2
4400	54200	1.204	1297	81.4	1335	87.5	1376	93.3	1408	99.2	1447	105.3	1477	111.6	1512	117.7
4600	56670	1.317	1328	88.6	1368	94.7	1405	100.9	1440	107.2	1475	113.3	1505	119.6	1538	126.1
4800	59130	1.432	1362	96.5	1399	102.7	1434	108.7	1468	115.4	1503	121.9	1535	128.2	1569	135.1
5000	61600	1.552	1397	104.6	1431	111.1	1466	117.4	1497	123.8	1533	131.0	1566	137.3	1597	144.4
5200	64060	1.679	1431	113.3	1463	119.8	1498	126.4	1529	133.4	1563	140.4	1594	147.7	1625	154.1
5400	66530	1.812	1463	122.5	1497	129.6	1532	136.7	1559	143.0	1593	151.6	1623	157.6	1653	164.7
5600	69000	1.950	1500	132.5	1529	139.4	1566	146.8	1593	153.6	1625	160.9	1653	168.2	1683	175.9

## No. 7 Type "T" Double Width

Capacities, Speeds and Horse Powers of High Pressure Double Width Turbo-Conoidal  
Blowers for Underfeed Stokers and Similar Service

Outlet Velocity	A.P.M.	Add for Tot. Pres.	4" S. P.		4½" S. P.		5" S. P.		5½" S. P.		6" S. P.		6½" S. P.		7" S. P.	
			R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.
1600	22850	.160	886	26.6	931	30.5	979	34.5	1020	38.5	1060	42.8	1102	47.1	1140	51.7
1800	25720	.202	902	29.3	949	33.3	991	37.5	1034	41.7	1073	46.1	1114	50.6	1151	55.1
2000	28580	.250	917	32.1	964	36.4	1007	40.6	1050	45.1	1089	49.7	1127	54.4	1163	59.3
2200	31440	.302	937	35.2	982	39.7	1024	44.2	1066	48.9	1103	53.6	1141	58.5	1180	63.4
2400	34300	.360	954	38.8	1000	43.4	1043	48.1	1083	52.9	1122	57.8	1159	62.9	1196	68.1
2600	37150	.422	975	42.6	1019	47.3	1060	52.3	1100	57.3	1140	62.5	1177	67.7	1212	73.1
2800	40010	.489	999	46.5	1039	51.6	1080	56.8	1119	62.2	1157	67.5	1193	73.0	1229	78.5
3000	42870	.560	1020	51.1	1062	56.4	1103	61.8	1137	67.2	1177	72.8	1214	78.6	1246	84.3
3200	45730	.638	1045	55.8	1086	61.4	1123	67.0	1159	72.8	1197	78.6	1233	84.4	1264	90.6
3400	48580	.721	1070	61.0	1109	66.7	1146	72.7	1180	78.6	1220	84.8	1252	90.8	1286	97.1
3600	51440	.808	1095	66.7	1135	72.6	1169	78.7	1207	85.0	1242	91.2	1273	97.6	1307	104.2
3800	54300	.890	1123	72.9	1160	79.0	1196	85.3	1230	91.7	1264	98.2	1297	104.8	1329	111.3
4000	57150	.995	1150	79.8	1186	85.8	1223	92.3	1254	99.0	1290	105.6	1320	112.5	1353	119.4
4200	60000	1.098	1178	86.8	1213	93.4	1249	100.0	1281	106.9	1316	113.7	1346	120.6	1377	127.8
4400	62860	1.204	1203	94.5	1240	101.5	1277	108.2	1307	115.1	1343	122.1	1372	129.4	1404	136.6
4600	65730	1.317	1232	102.7	1270	109.9	1304	117.0	1337	124.3	1370	131.5	1397	138.7	1429	146.2
4800	68580	1.432	1265	111.9	1299	119.1	1332	126.1	1364	133.8	1396	141.4	1426	148.7	1457	156.7
5000	71440	1.552	1297	121.3	1329	128.9	1362	136.1	1390	143.6	1423	151.9	1454	159.3	1483	167.4
5200	74300	1.679	1329	131.5	1359	139.0	1392	146.6	1420	154.7	1452	162.8	1480	171.3	1509	178.7
5400	77160	1.812	1359	142.1	1390	150.3	1423	158.6	1447	165.9	1479	175.8	1507	182.8	1534	191.0
5600	80010	1.950	1394	153.7	1420	161.7	1454	170.3	1479	178.2	1509	186.6	1534	195.0	1563	204.0

## No. 7½ Type "T" Double Width

Capacities, Speeds and Horse Powers of High Pressure Double Width Turbo-Conoidal  
Blowers for Underfeed Stokers and Similar Service

Outlet Velocity	A.P.M.	Add for Tot. Pres.	4" S. P.		4½" S. P.		5" S. P.		5½" S. P.		6" S. P.		6½" S. P.		7" S. P.	
			R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.
1600	26250	.160	827	30.5	869	35.0	913	39.6	952	44.2	990	49.2	1028	54.1	1064	59.4
1800	29550	.202	843	33.6	885	38.3	925	43.0	965	47.9	1002	52.9	1040	58.1	1075	63.3
2000	32820	.250	856	36.8	900	41.7	940	46.6	980	51.8	1015	57.0	1052	62.4	1085	68.1
2200	36090	.302	875	40.5	916	45.6	956	50.7	995	56.1	1030	61.5	1065	67.1	1101	72.8
2400	39370	.360	891	44.5	933	49.8	973	55.2	1011	60.8	1047	66.4	1081	72.2	1116	78.2
2600	42650	.422	909	48.8	951	54.3	989	60.0	1027	65.8	1064	71.7	1099	77.8	1131	83.9
2800	45950	.489	932	53.4	969	59.2	1008	65.2	1044	71.4	1080	77.5	1113	83.8	1147	90.1
3000	49210	.560	953	58.7	991	64.7	1027	70.9	1061	77.2	1099	83.5	1133	90.2	1163	96.8
3200	52490	.638	975	64.0	1013	70.4	1048	76.9	1081	83.5	1118	90.2	1151	96.9	1180	104.0
3400	55770	.721	999	70.0	1035	76.6	1069	83.4	1101	90.2	1139	97.3	1168	104.3	1200	111.5
3600	59050	.808	1021	76.6	1059	83.4	1091	90.3	1125	97.6	1159	104.7	1188	112.1	1220	119.5
3800	62320	.890	1048	83.6	1083	90.7	1115	97.9	1148	105.3	1180	112.7	1211	120.5	1240	127.8
4000	65620	.995	1074	91.6	1107	98.5	1141	106.0	1171	113.6	1204	121.2	1232	129.1	1263	137.1
4200	68890	1.098	1099	99.7	1132	107.3	1165	114.8	1196	122.8	1228	130.6	1256	138.4	1285	146.7
4400	72170	1.204	1124	108.5	1157	116.5	1192	124.3	1220	132.2	1254	140.2	1280	148.5	1311	156.8
4600	75450	1.317	1151	117.9	1186	126.1	1217	134.4	1248	142.7	1279	151.0	1304	159.2	1333	167.9
4800	78730	1.432	1180	128.4	1212	136.8	1243	144.7	1272	153.6	1303	162.3	1331	170.7	1360	179.9
5000	82010	1.552	1211	139.2	1240	148.0	1271	156.3	1297	164.8	1328	174.4	1357	182.8	1384	192.2
5200	85300	1.679	1240	150.9	1268	159.5	1299	168.3	1326	177.6	1355	186.9	1381	196.6	1408	205.2
5400	88580	1.812	1268	163.2	1298	172.5	1328	182.0	1351	190.4	1380	201.8	1407	209.8	1432	219.3
5600	91850	1.950	1300	176.4	1325	185.6	1357	195.5	1380	204.5	1408	214.2	1432	223.9	1459	234.2

## No. 8 Type "T" Double Width

Capacities, Speeds and Horse Powers of High Pressure Double Width Turbo-Conoidal  
Blowers for Underfeed Stokers and Similar Service

Outlet Velocity	A.P.M.	Add for Tot. Pres.	4" S. P.		4½" S. P.		5" S. P.		5½" S. P.		6" S. P.		6½" S. P.		7" S. P.	
			R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.
1600	29860	.160	775	34.8	815	39.8	856	45.0	893	50.3	928	55.9	964	61.6	998	67.5
1800	33600	.202	790	38.2	830	43.5	868	49.0	905	54.5	939	60.2	975	66.1	1008	72.0
2000	37330	.250	803	41.9	844	47.5	881	53.1	919	58.9	953	64.9	986	71.0	1018	77.4
2200	41060	.302	820	46.0	859	51.8	896	57.7	933	63.8	965	70.0	999	76.4	1033	82.8
2400	44790	.360	835	50.6	875	56.6	913	62.8	948	69.1	981	75.5	1013	82.2	1047	88.9
2600	48530	.422	853	55.5	891	61.8	928	68.3	963	74.9	998	81.6	1030	88.5	1060	95.4
2800	52260	.489	874	60.8	909	67.4	945	74.2	979	81.2	1013	88.2	1044	95.3	1075	102.5
3000	55990	.560	894	66.8	928	73.6	963	80.6	995	87.8	1030	95.0	1063	102.7	1090	110.1
3200	59720	.638	914	72.8	950	80.1	983	87.5	1014	95.1	1048	102.7	1079	110.3	1107	118.3
3400	63450	.721	936	79.7	970	87.1	1003	94.9	1033	102.7	1068	110.7	1095	118.7	1125	126.8
3600	67180	.808	958	87.2	993	94.8	1023	102.8	1055	111.0	1087	119.2	1114	127.5	1144	136.0
3800	70910	.890	983	95.2	1015	103.2	1047	111.4	1076	119.8	1106	128.3	1135	136.9	1163	145.4
4000	74650	.995	1006	104.2	1038	112.1	1070	120.6	1098	129.3	1129	137.9	1155	146.9	1184	156.0
4200	78380	1.098	1030	113.4	1061	122.1	1093	130.6	1121	139.7	1151	148.6	1178	157.6	1205	166.9
4400	82110	1.204	1054	123.4	1085	132.6	1118	141.4	1144	150.3	1175	152.5	1200	169.0	1229	178.4
4600	85850	1.317	1079	134.2	1111	143.5	1141	152.8	1170	162.3	1199	171.7	1223	181.1	1250	191.0
4800	89570	1.432	1107	146.1	1136	155.6	1165	164.7	1193	174.7	1221	184.7	1248	194.2	1275	204.7
5000	93310	1.552	1135	158.4	1163	168.3	1191	177.8	1216	187.5	1245	198.4	1273	208.0	1298	218.7
5200	97050	1.679	1163	171.7	1189	181.5	1218	191.4	1243	202.0	1270	212.6	1296	223.7	1320	233.4
5400	100780	1.812	1189	185.6	1216	196.3	1245	207.1	1266	216.7	1294	229.6	1319	238.7	1343	249.5
5600	104530	1.950	1219	200.7	1243	211.2	1273	222.4	1294	232.7	1320	243.7	1343	254.7	1368	266.5

## No. 8½ Type "T" Double Width

Capacities, Speeds and Horse Powers of High Pressure Double Width Turbo-Conoidal  
Blowers for Underfeed Stokers and Similar Service

Outlet Velocity	A.P.M.	Add for Tot. Pres.	4" S. P.		4½" S. P.		5" S. P.		5½" S. P.		6" S. P.		6½" S. P.		7" S. P.	
			R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.
1600	33710	.160	729	39.2	767	44.9	806	50.8	840	56.8	873	63.2	907	69.5	939	76.2
1800	37950	.202	744	43.1	781	49.1	817	55.3	852	61.5	884	67.9	918	74.6	948	81.3
2000	42140	.250	755	47.3	794	53.6	829	59.9	865	66.6	897	73.3	928	80.1	958	87.4
2200	46350	.302	772	52.0	808	58.5	844	65.1	878	72.0	908	79.0	940	86.2	972	93.5
2400	50570	.360	786	57.2	824	63.9	859	70.9	892	78.0	924	85.3	954	92.8	985	100.4
2600	54780	.422	802	62.6	839	69.8	873	77.1	906	84.5	939	92.1	970	99.9	998	107.7
2800	58990	.489	822	68.6	855	76.1	889	83.7	921	91.7	953	99.6	982	107.6	1012	115.8
3000	63200	.560	842	75.4	874	83.1	906	91.0	937	99.1	970	107.3	1000	115.9	1026	124.3
3200	67420	.638	860	82.2	894	90.5	925	98.8	954	107.3	986	115.9	1015	124.5	1041	133.5
3400	71630	.721	881	89.9	913	98.3	944	107.2	972	115.9	1005	125.0	1031	134.0	1059	143.1
3600	75840	.808	901	98.4	934	107.1	963	116.0	993	125.3	1023	134.5	1048	143.9	1077	153.5
3800	80050	.890	925	107.5	955	116.5	985	125.7	1013	135.3	1041	144.8	1068	154.5	1095	164.2
4000	84270	.995	947	117.6	977	126.5	1007	136.1	1033	146.0	1063	155.7	1087	165.8	1114	176.1
4200	88470	1.098	970	128.0	999	137.8	1028	147.5	1055	157.7	1084	167.7	1108	177.8	1134	188.4
4400	92700	1.204	992	139.3	1021	149.6	1052	159.1	1077	169.7	1106	180.0	1130	190.8	1157	201.4
4600	96910	1.317	1015	151.5	1046	162.0	1074	172.5	1101	183.2	1128	193.9	1151	204.5	1177	215.6
4800	101120	1.432	1041	165.0	1070	175.6	1097	185.9	1122	197.3	1150	208.5	1174	219.2	1200	231.1
5000	105340	1.552	1068	178.8	1094	190.0	1121	200.7	1145	211.7	1172	224.0	1198	234.8	1221	246.9
5200	109550	1.679	1094	193.9	1119	204.9	1146	216.1	1170	228.1	1195	240.0	1219	252.5	1242	263.5
5400	113760	1.812	1119	209.5	1145	221.6	1172	233.8	1192	244.6	1218	259.2	1241	269.5	1264	281.6
5600	117980	1.950	1147	226.6	1170	238.5	1198	251.1	1218	262.7	1242	275.1	1264	287.6	1287	300.9



## No. 9 Type "T" Double Width

Capacities, Speeds and Horse Powers of High Pressure Double Width Turbo-Conoidal  
Blowers for Underfeed Stokers and Similar Service

Outlet Velocity	A.P.M.	Add for Tot. Pres.	4" S. P.		4½" S. P.		5" S. P.		5½" S. P.		6" S. P.		6½" S. P.		7" S. P.	
			R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.
1600	37800	.160	689	44.0	725	50.4	761	57.0	793	63.7	825	70.8	857	77.9	887	85.5
1800	42520	.202	702	48.4	738	55.1	771	62.0	805	68.9	835	76.2	867	83.7	896	91.1
2000	47240	.250	713	53.1	750	60.1	783	67.2	817	74.6	847	82.1	877	89.8	905	98.0
2200	51960	.302	729	58.2	763	65.6	797	73.0	829	80.8	858	88.6	888	96.6	918	104.8
2400	56690	.360	742	64.1	778	71.7	811	79.5	842	87.5	872	95.6	901	104.0	930	112.5
2600	61420	.422	758	70.2	792	78.3	825	86.4	856	94.8	887	103.3	916	112.0	942	120.8
2800	66140	.489	777	77.0	808	85.3	840	93.9	870	102.8	900	111.6	928	120.6	956	129.8
3000	70860	.560	795	84.5	826	93.2	856	102.1	884	111.2	916	120.3	945	129.9	969	139.3
3200	75580	.638	812	92.2	845	101.4	873	110.7	901	120.3	931	129.9	959	139.6	983	149.7
3400	80300	.721	832	100.9	862	110.3	891	120.1	918	129.9	949	140.1	974	150.2	1000	160.5
3600	85030	.808	851	110.3	882	120.1	909	130.1	938	140.5	966	150.8	990	161.4	1017	172.1
3800	89750	.890	873	120.5	902	130.6	930	141.0	957	151.6	984	162.3	1009	173.3	1033	184.0
4000	94480	.995	895	131.9	922	141.8	951	152.6	976	163.6	1003	174.6	1027	185.9	1052	197.4
4200	99200	1.098	916	143.5	944	154.5	971	165.3	997	176.8	1024	188.0	1047	199.3	1071	211.3
4400	103920	1.204	937	156.2	965	167.8	993	179.0	1017	190.3	1045	201.9	1067	213.9	1092	225.8
4600	108650	1.317	959	169.8	988	181.6	1015	193.4	1040	205.4	1065	217.3	1087	229.2	1111	241.7
4800	113380	1.432	983	184.9	1010	196.9	1036	208.4	1060	221.1	1086	233.7	1109	245.8	1134	259.0
5000	118100	1.552	1009	200.5	1034	213.0	1059	225.0	1081	237.3	1107	251.1	1131	263.3	1153	276.7
5200	122830	1.679	1033	217.3	1057	229.7	1082	242.3	1105	255.7	1129	269.1	1151	283.1	1173	295.4
5400	127550	1.812	1057	234.9	1081	248.4	1107	262.1	1126	274.2	1150	290.6	1172	302.2	1194	315.7
5600	132280	1.950	1084	254.0	1105	267.3	1131	281.5	1150	294.5	1174	308.5	1194	322.4	1216	337.3

## No. 9½ Type "T" Double Width

Capacities, Speeds and Horse Powers of High Pressure Double Width Turbo-Conoidal  
Blowers for Underfeed Stokers and Similar Service

Outlet Velocity	A.P.M.	Add for Tot. Pres.	4" S. P.		4½" S. P.		5" S. P.		5½" S. P.		6" S. P.		6½" S. P.		7" S. P.	
			R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.
1600	42110	.160	653	49.0	686	56.2	721	63.4	752	71.0	781	78.9	812	86.8	840	95.2
1800	47370	.202	665	53.9	699	61.4	730	69.4	762	76.8	791	84.9	821	93.2	848	101.5
2000	52620	.250	676	59.1	711	67.0	742	74.8	774	83.1	802	91.5	831	100.1	857	109.2
2200	57900	.302	691	64.9	723	73.1	755	81.3	785	90.0	813	98.9	841	107.7	869	116.8
2400	63160	.360	703	71.4	737	79.9	768	88.6	798	97.5	826	106.5	854	116.0	881	125.4
2600	68420	.422	718	78.2	751	87.2	781	96.3	811	105.6	840	115.1	867	124.8	893	134.6
2800	73690	.489	736	85.7	765	95.0	796	104.6	824	114.5	853	124.4	879	134.4	905	144.6
3000	78950	.560	753	94.1	782	103.8	811	113.7	838	123.8	867	134.0	895	145.0	918	155.2
3200	84210	.638	769	102.8	800	113.0	827	123.4	854	134.0	882	144.9	908	155.5	932	166.8
3400	89470	.721	788	112.4	817	122.9	844	133.9	869	144.8	899	156.1	922	167.3	947	178.8
3600	94750	.808	806	123.0	836	133.8	861	145.0	888	156.5	915	168.1	938	179.8	963	191.8
3800	100000	.890	827	134.2	855	145.5	881	157.0	906	169.0	932	181.0	956	193.0	979	205.0
4000	105270	.995	847	147.0	874	158.0	901	170.0	924	182.3	951	194.5	973	207.1	997	220.0
4200	110530	1.098	867	160.0	894	172.1	920	184.2	944	197.0	970	209.5	992	222.1	1015	235.4
4400	115780	1.204	886	174.0	914	186.9	941	199.4	963	212.0	989	224.9	1010	238.4	1035	251.5
4600	121080	1.317	908	189.1	936	202.3	961	215.5	985	228.9	1009	242.2	1029	255.4	1053	269.3
4800	126320	1.432	932	206.0	957	219.4	981	232.2	1004	246.4	1028	260.4	1051	273.8	1074	288.6
5000	131580	1.552	956	223.4	979	237.4	1003	250.7	1024	264.4	1048	280.0	1072	293.3	1093	308.4
5200	136840	1.679	979	242.2	1001	255.9	1025	270.0	1046	284.9	1070	300.0	1091	315.5	1112	329.2
5400	142120	1.812	1000	261.7	1024	276.8	1049	292.0	1066	305.5	1090	324.0	1110	336.7	1131	351.8
5600	147380	1.950	1026	283.0	1046	297.8	1072	313.6	1090	328.2	1111	344.0	1131	359.2	1152	375.8

## No. 10 Type "T" Double Width

Capacities, Speeds and Horse Powers of High Pressure Double Width Turbo-Conoidal  
Blowers for Underfeed Stokers and Similar Service

Outlet Velocity	A.P.M.	Add for Tot. Pres.	4" S. P.		4½" S. P.		5" S. P.		5½" S. P.		6" S. P.		6½" S. P.		7" S. P.	
			R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.	R.P.M.	H.P.
1600	46660	.160	620	54.3	652	62.2	685	70.3	714	78.6	742	87.4	771	96.2	798	105.5
1800	52490	.202	632	59.7	664	68.0	694	76.5	724	85.1	751	94.0	780	103.3	806	112.5
2000	58320	.250	642	65.5	675	74.2	705	82.9	735	92.1	762	101.4	789	110.9	814	121.0
2200	64150	.302	656	71.9	687	81.0	717	90.1	746	99.7	772	109.4	799	119.3	826	129.4
2400	69990	.360	668	79.1	700	88.5	730	98.1	758	108.0	785	118.0	811	128.4	837	138.9
2600	75820	.422	682	86.7	713	96.6	742	106.7	770	117.0	798	127.5	824	138.2	848	149.1
2800	81650	.489	699	95.0	727	105.3	756	115.9	783	126.9	810	137.8	835	148.9	860	160.2
3000	87480	.560	715	104.3	743	115.0	770	126.0	796	137.2	824	148.5	850	160.4	872	172.0
3200	93310	.638	731	113.8	760	125.2	786	136.7	811	148.5	838	160.4	863	172.3	885	184.8
3400	99140	.721	749	124.5	776	136.1	802	148.3	826	160.4	854	173.0	876	185.4	900	198.1
3600	104980	.808	766	136.2	794	148.2	818	160.6	844	173.4	869	186.2	891	199.2	915	212.5
3800	110800	.890	786	148.7	812	161.2	837	174.0	861	187.2	885	200.4	908	213.9	930	227.2
4000	116640	.995	805	162.8	830	175.1	856	188.4	878	202.0	903	215.5	924	229.5	947	243.7
4200	122470	1.098	824	177.2	849	190.7	874	204.1	897	218.2	921	232.1	942	246.1	964	260.8
4400	128300	1.204	843	192.8	868	207.1	894	220.9	915	234.9	940	249.2	960	264.1	983	278.7
4600	134130	1.317	863	209.6	889	224.2	913	238.8	936	253.6	959	268.3	978	283.0	1000	298.4
4800	139970	1.432	885	228.3	909	243.1	932	257.3	954	273.0	977	288.5	998	303.4	1020	319.8
5000	145800	1.552	908	247.5	930	263.0	953	277.8	973	293.0	996	310.0	1018	325.0	1038	341.7
5200	151630	1.679	930	268.3	951	283.6	974	299.1	994	315.7	1016	332.2	1036	349.5	1056	364.7
5400	157480	1.812	951	290.0	973	306.7	996	323.6	1013	338.5	1035	358.8	1055	373.0	1074	389.8
5600	163300	1.950	975	313.6	994	330.0	1018	347.5	1035	363.6	1056	380.8	1074	398.0	1094	416.4





**SCANNED BY: AEM OF LOCKPORT NY USA**

**POSTED ON: SEPTEMBER 25, 2016**

**EDITED BY: BRIAN D. SZAFRANSKI**

**ELMA, NEW YORK USA**

**COURTESY OF: WESTERN NY GAS & STEAM ENGINE ASSOCIATION**

**ALEXANDER NEW YORK USA**

**[WWW.ALEXANDERSTEAMSHOW.COM](http://WWW.ALEXANDERSTEAMSHOW.COM)**

**NOTE: ORIGINAL DOCUMENT HAD SEVERE WATER DAMAGE**